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# MUNICIPAL JOURNAL AND ENGINEER



WATER SUPPLY,  
PAVING,  
SEWERAGE,  
LIGHTING, SANITATION,  
FIRE AND POLICE  
SERVICE,  
AND ALL  
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WATER-WORKS DISTRIBUTION. A Practical Guide to the Laying Out of Systems of Distributing Mains for the Supply of Water to Cities and Towns.—By J. A. McPherson, A. M. Inst. C. E. 8vo. Cloth, with Folding Plates, Diagrams and Illustrations. Price, \$2.50.

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### SPECIAL NOTICE

In the respective following issues of the Municipal Journal and Engineer considerable space will be devoted specially to the subjects as indicated:

—1906—

October 3d - - - FIRE AND POLICE

November 7th - - - LIGHTING

—Gas, Electricity, etc.

December 5th - - - BRIDGES

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It is also desired that the facilities furnished by the reference library in this office should be widely known and freely used by those interested in municipal affairs. Visitors will be welcomed and provided with conveniences for search, and inquiries by mail will be promptly dealt with.

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## Conventions for City Officials

THE Street and Sewer Department of a certain Eastern city, having decided to send a representative to the Birmingham convention of the American Society of Municipal Improvements, a local daily has taken this as a text for an editorial on junketing. What part, if any, political differences play in this particular criticism we do not know; but similar ones are not uncommon in other cities, and it is worth while to ask how much truth there is in the statements that "very little benefit has been derived by cities in general, and by our own city in particular, from them" (conventions of such societies). "They serve as an excuse for pleasure outings for office holders and their families, while the taxpayers stay at home and pay the fiddler."

We do not believe any official can do full justice to his office who evolves all his knowledge from his inner consciousness or obtains it solely from his predecessor in office or his own experience. There are two other obvious methods of obtaining information—the reading

of books and periodicals for fundamental principles and the latest developments and practices, and direct inter-communication of ideas with similar officials of other cities; and both are almost indispensable. For the former the department library and reading room is essential. To effect the latter the very best plan probably would be to send the officials to examine actual structures and operations in a large number of cities, and to interview the officials in each, such a trip being taken say once a year. In some cases this has been done to a certain extent, but it is necessarily expensive. As a substitute the collecting of officials from many cities at some one point annually is the best yet offered.

There is a general impression that, however excellent this may be in theory, the delegates do not attend with this object in view, but rather to have a good time at their city's expense. We have been present at a considerable number of these conventions and have always found in a large majority of those present an earnest purpose to learn all they can along their own lines of official work. There are generally some excursions for the purpose of entertainment; the majority of the delegates would grow mentally round-shouldered and dazed if compelled to receive solid chunks of information from 9 a.m. to 11 p.m. daily, with only two hours out for meals. But even on such excursions, passing from group to group, we have found a large proportion "talking shop." As to the amount of formal information received, a Street and Sewer Superintendent attending the convention of this same society in 1904 heard five papers read and discussed on paving and five on sewerage; and in 1905 seven papers on paving and three on sewerage, the face-to-face discussions of the subjects introduced by the papers being especially valuable. He also inspected an exhibition of the latest appliances and materials in asphalt, brick, wood block and other paving, and in sewers and sewer construction. As to the actual direct benefit, we know personally of several cases where considerable changes for the better in certain city departments have been the direct results of a convention; but in general the benefit has been in the form of a broader knowledge in the officials and a gradual improvement in methods. By far the largest part of all the ordinary expenditures of a city, except, perhaps, that for the schools, is made by officials of the water, sewer and paving departments; and that official must be singularly unreceptive or uninterested in his municipal duties who cannot learn enough or be stimulated to better work at such a convention to increase the effectiveness of this vast expenditure.

## NOVEL EXCAVATING PLANT

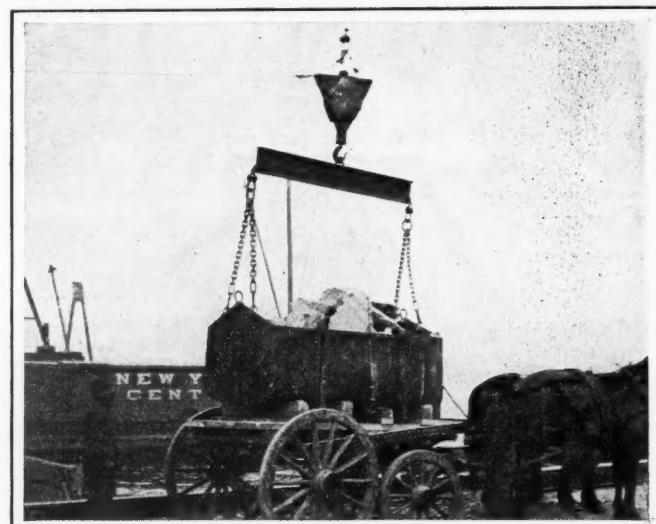
### Reduces Noise and Facilitates Work in Tunnels Across New York City—Machinery Employed and How Operated

CONDITIONS surrounding the work at the intermediate shafts of the Pennsylvania Tunnels across New York City necessitated the installation of a disposal plant which would reduce to a minimum the noise incident to the operations carried on. Under Mr. D. L. Hough, President of the United Engineering and Contracting Company, a system of handling the work has been perfected which has several elements of novelty and general interest.

The skips, as shown in the accompanying photographs, are made in two sections, fastened together by a hinge at the top. These skips are placed upon flat cars in the tunnel and are loaded and run to the shaft on a narrow gauge track. The fall block of the hoister carries a steel I-beam, with a short chain and hooks placed in the ring at the apex of the ends of the bucket. While it is being hoisted, the skip is protected from the sides of the shaft by means of a timber frame work, on which are fastened tight T-rails as guides. After the car and skip reach the shaft, the skip is hoisted to the surface and transferred by the traveler to the wagon in the street, where the hooks of the I-beam hanger are disengaged from the rings of the skip, and the load hauled to the dock for disposal upon the scow. At the dock, derricks are provided with an I-beam hanger and chains to lift the skips from the wagons. The derrick used for this work is provided with a double-drum electric hoist with a turning gear for moving the derrick boom. The only addition required to the derrick rigging when using this skip is a light wire rope attached to a hook on each side of the skip for the purpose of tripping the skip to discharge its load. These ropes connect above the fall block and fasten to the ring on the end of a single rope which runs over a sheave near the end of the boom, and from there passes over a sheave near the foot of the mast, and from there to the hoister, where it is controlled by the hoister-runner. This rope is wrapped around a capstan head and over a sheave to which is attached a counter-weight to take up the slack.

#### NOVEL FEATURES

The novel feature of this skip is that, owing to the locating of the supporting chains, it remains closed without the use of the latches when raised by the derrick until the tripping rope is operated. No latches are used. After the hooks have been fastened to the skip, the skip is raised and carried above the scow and then lowered so that there will be no damage done to the deck of the scow by the falling rock. The hoister-runner can empty the skip at any desired height by checking the tripping ropes and lowering the fall block at the end of the boom. The tripping ropes prevent the two outer sides of the skip from falling, and the load then passes through the opening between the two halves of the skip. The capacity of these



SKIP IN OPERATION IN PENNSYLVANIA TUNNELS, NEW YORK CITY

skips is almost three cubic yards when loaded level with the top.

Considerable time is saved over the old method of using dump wagons and a dummy platform. These skips are raised from the wagon, dumped aboard the scow and placed back upon the wagon in 30 seconds. From the time that a team arrives at the dock to the time that it leaves is only 1 3/4 minutes; while it takes from 4 to 6 minutes to unload a dump wagon from a dumping board into a scow. Much time is also saved at the shaft by eliminating the derrick, cages and the handling of the dump cars upon the platform. The contractors claim that 25 per cent. more material can be removed in a corresponding time by this method than by others heretofore in use in New York City.



SCENE ABOUT PENNSYLVANIA TUNNELS, NEW YORK CITY

## WATER FILTER AT LANCASTER, PA

### A Sand Filter with a Sponge "Scrubber"—Physical Results Excellent—Bacteriological Ones Being Tested —Suggestions of Mayor

THE Mayor of Lancaster, Pa., John P. McCaskey, in his annual message, reports upon the new water filter, as follows:

"The reports to the Water Committee of Dr. S. P. Sadler, the expert chemist and bacteriologist, of Philadelphia, made twice each week upon water, raw and filtered, taken at the pumping station, justify the confidence felt in the efficiency of the filter plant. As we all know the Conestoga rolls in mud when the fields are ploughed and the rains are heavy. Then it has a bad look, and that has been the worst thing about it. As the country which it drains grows more populous and manufacturing increases the risk of contamination is also increased. It was the outcry against the mud that forced the problem of filtration upon the attention of City Councils. But the removal of impurities more injurious to health, which are seen only by the aid of the microscope and their character detected by the skill of the chemist, is a yet stronger reason for the thorough filtration of our Conestoga water. . . .

"Our filter plant in Lancaster is mainly the sand filtration method with a body of sponge in the line of the water flow. No coagulant whatever is used, nor chemical of any sort, unless the water is unusually muddy, when a powdered mixture of lime, soda and alum, the ingredients in due proportion, according to an approved formula, is supplied in uniform quantity to the muddy water as it comes from the pumping station. It is claimed for this mixture—at least two elements of which are altogether harmless in the quantity used—that any given number of pounds of it are better as a coagulant than an equal weight of pure alum. It is further claimed that nearly all of it is precipitated along with impurities originally present and that the water being thus made softer, is better than the clear water of the days and weeks when no coagulant is used. The apparatus for supplying this coagulant to the water in proper quantity has recently been put into position and, if it should work as well as promised, we will have no more muddy water pumped into the city.

"The reservoir connected with the filter beds into which the clear water flows, and from which it is pumped into the city, has a capacity of nearly two million gallons. It is of the most durable construction, and the water which is constantly flowing into it from the filter and being pumped out of it into the city mains is wonderfully clear, so clear, indeed, that a small coin which some one tossed into it can be distinctly seen as it lies upon the bottom. And it is so limpid clear, because nearly all the suspended matter and most of the dissolved matter has been taken out of it.

"It is proposed by the Water Committee to have the whole matter of bacteriological results at the filter

plant thoroughly tested. They want to know for themselves and they want the public to know all that can be learned through the most careful expert analysis. The importance of the question to this community demands such rigid inquiry. If these results justify our confidence in the filter plant it will be approved as satisfactory, and only upon this condition. The Pennsylvania Maignen Filtration Company has agreed to furnish water up to a certain high standard, and it is the duty of the Water Committee and of the City Councils to so safeguard the city's interest that this standard shall be maintained all the while and under all conditions."

## BROOKLYN, N. Y., PARKS AND PARKWAYS

BROOKLYN, N. Y., is well supplied with parks, while the borough of Queens, which comes under the same management, is also favored in this respect, the total park area of the two boroughs being 1,663½ acres. One of the largest and finest of these is Prospect Park, the second in point of size in the city. The construction of this park began in June, 1866. The land (516½ acres) cost \$3,919,370.70. Construction cost about \$6,000,000.

### ACREAGE OF THE PARKS

	Acres		Acres
Bedford Park.....	4	Irving Square.....	3½
Bensonhurst Beach.....	8	King's Park, Jamaica.....	11
Brooklyn Heights (five small parks).....	5	Lincoln Terrace.....	12
Bushwick Park.....	6	Linden, Corona.....	3
Canarsie Beach.....	40	Linton Park.....	3
Carroll Park.....	2	McKinley Park.....	8½
City Hall Park.....	1	McLaughlin Park.....	4
City Park.....	7½	Monitor Square, L. I. City.....	1½
College Point Park.....	1	Municipal Park.....	3
Concourse, Coney Island.....	70	New Lots Playground.....	3
Cooper Park.....	7	Parade Ground.....	40
Dyker Beach Park.....	144	Poppenhausen, College Point.....	1½
East Side Lands.....	50	Prospect Park.....	516½
Flushing.....	1½	Red Hook Park.....	6
Forest.....	535	Saratoga Square.....	4
Fort Greene Park.....	30	Sunset Park.....	14½
Fort Hamilton.....	7	Tompkins Park.....	7½
Fulton Park.....	3	Winthrop Park.....	8½
Highland Park.....	55	Williamsburgh Bridge Park.....	4½
Institute Garden.....	50	Williamsburgh Park.....	42½

There are also thirteen small gore parks, each covering a small gore block, and containing from  $\frac{1}{4}$  to  $\frac{1}{2}$  acre each. These are Underhill Park, Ashmead Park, Stuyvesant Park, Cuyler Park, Cooper Gore Park, Woodpoint Park, and one unnamed park in the Twenty-sixth Ward, one at College Point, one at Ravenswood, and six at Long Island City.

Total acreage of parks, 1,663½ acres.

### THE PARKWAYS

	Miles long		Miles long
Bay Parkway (formerly Twenty-second Avenue).....	2½	Miller Avenue.....	1-10
Bay Ridge Parkway (Shore Drive).....	4	New Lots Avenue, part of.....	1
Buffalo Avenue, part of.....	½	Ocean Avenue, part of.....	1
Bushwick Avenue, part of.....	1	Ocean Parkway.....	5½
Dumont Avenue, part of.....	1	Pennsylvania Avenue, part of.....	2½
Eastern Parkway.....	2½	Pitkin Avenue, part of.....	1
Eastern Parkway Extension.....	2½	Riverdale Avenue, part of.....	1
Fort Hamilton Parkway.....	4½	Rockaway Parkway.....	3
Fourth Avenue, part of.....	6	Seventy-fifth Street, part of.....	3½
Glenmore Avenue, part of.....	2½	Shaw Avenue, part of.....	1
		Stone Avenue, part of.....	1
		Union Street, part of.....	1

Total miles of parkways, 44½ miles.

Modern cities are not as noisy as those of other days. For example, in London in the time of King George II. the streets were still cobbled and the pack horse of Elizabethan memory has been replaced by heavy carts and wagons. Barrels of beer and heavy cases were dragged about on drays of iron without wheels, and to add to the tumult heavy signs in immense frames of ironwork hung out in front of shops and houses and croaked interminably. Street cries never ceased for a moment all day. All the smaller necessities, such as pins, thread, string, ink, straps, fish, milk, cakes, bread, drugs, herbs, matches, were hawked in the streets.—Exchange.

## MUNICIPAL NEWS

**ALABAMA, Tuscaloosa.**—The city is soon to have a new waterworks system, with all the pure water that the city needs. Bonds are to be sold and a plant erected. A population of 6,000 is required before the bonds can be floated, but Tuscaloosa can now show up a much larger population than is necessary.

**ARIZONA, Douglas.**—The city has purchased a steam roller for \$3,750, to macadamize streets. Some citizens claim that the Council was too hasty in making the purchase without advertising for bids.

**ARKANSAS, Fort Smith.**—The question of building a jail and hospital on the site of the present poor farm is under discussion. Some objection has been made to the location on account of danger from a neighboring powder mill. Others do not think this an objection.

**CALIFORNIA, Alturas.**—The Board of Trustees has purchased an acre of land on a hill 80 feet above the general level of the town for a waterworks and reservoir. Wells from 200 to 300 feet deep ordinarily furnish abundant supply of water. Last fall the business section of the town was burned out.

**Chico.**—In a proposed new charter, it is to be provided, among other things, that the prisoners in the city jail be required to do street and park work. Technical and night schools may be established.

**Los Angeles.**—The Water Commissioners have requested the Federal Government to deny all applications of private individuals and corporations for water rights on streams entering Owens lake and river. The city wants the use of all the water in that district.

**Oakland.**—Mayor Mott and other members of the city government will take up the question of a new City Hall. A new thoroughfare may be opened, dividing the city grounds, on the eastern half of which the structure may be built. A Hall of Justice will be located on its other half. Competitive plans for the half-million-dollar structure will be invited.

**San Jose.**—An ordinance has been approved by Mayor H. D. Mathews creating a Department of Electricity, whose chief officer shall be known as the City Electrician. He will have charge of all installation of electrical wiring and electrical apparatus in the city.

**COLORADO, La Junta.**—The town is experiencing a building boom. Two business blocks are just about finished, and the high school, costing \$30,000, will be occupied by January 1. The new pumping station for the waterworks is going up, and laying of mains for the new water system, which will cost \$50,000, is in progress.

**CONNECTICUT, Manchester.**—The ninth district grammar and primary school will occupy one of the best equipped school buildings in the country. It will be provided with sixteen shower baths, with apparatus for warming the water at all seasons. Children who come to school dirty will be obliged to make themselves presentable.

**DELAWARE, Wilmington.**—The annual report of the Street and Sewer Department for the year ended January 31, 1906, gives the total miles of streets as 93. Of pavements, the following quantities, measured in miles in round numbers, have been used: Rubble, 11; granite blocks, 12; asphalt blocks, 1-4; vitrified fire bricks, 15; macadam and telford, 19; Bermudez asphalt, 1-2; gravel, 1 1-2; Warren's bitulithic, 1-2. The prices paid per square yard were: For granite blocks, \$2.31; for macadam, \$0.67 and \$0.89; for bitulithic, \$1.95; for Bermudez, \$1.80.

**DISTRICT OF COLUMBIA, Washington.**—The proposal to stop the ringing of church bells is to receive serious consideration by the District Commissioners. President Macfarland believes that the ringing of these bells is unnecessary and disturbs the community. He made this motion: "I move that the pastors of the several churches in the District which have bells upon their buildings be requested to meet the Commissioners in conference with respect to the matter of regulating the ringing of such bells, so as to obviate, as far as possible, occasion for complaint on that account."

**FLORIDA, Orlando.**—A novel gas plant is being erected by Messrs. Cheney and Payne, who have been developing peat beds for fuel purposes during the past two years. Now their plan is to manufacture gas from the peat. Their plant, which is believed to be the first of its kind, in this country at least, is expected to be ready to supply Orlando with gas by November 1.

**GEORGIA, Augusta.**—The annual inspection of fire escapes and stand pipes in city buildings, to be made by Chief Reynolds and Commissioner Wingfield, will be thorough and all variations from the code regulations must be corrected. The code requires that business buildings more than 56 feet high and covering an area of 5,000 superficial feet and all buildings of 80 feet in height shall have a stand-pipe connected with the water main. Fire escapes must be put on buildings of three stories or more when ordered.

**Macon.**—George R. Cherry, a druggist, has been appointed Food Inspector, an office just created by the City Council. He will have authority to enter any grocery or butcher store at any time of day and inspect food on sale, and will also inspect milk.

**Savannah.**—The Savannah Electric Company is being boycotted by the negro population on account of the ordinance recently passed requiring separation of the races on street cars. The negroes are talking of forming a stock company and running electric automobiles in opposition.

**IDAHO, Wallace.**—Chief of Police Langley will make an effort to clear the town of tramps who do not find work when labor is scarce. Vagrants will hereafter be put to work cleaning up alleys. If not well behaved they will have to work with a ball and chain.

**ILLINOIS, Chicago.**—The North Central Improvement Association, by a special arrangement with the city, has official control of the east half of the 21st ward. Last year it spent \$1,600 in keeping its streets and alleys clean. Vacant lots have been looked after and care taken that they are not turned into dumping grounds. The present membership of less than 500 will be increased to 1,000.

**Pana.**—The tax levy of this town, of about 6,000 inhabitants, amounts to \$8,000 a year and is divided as follows: Electric lights, \$1,500; streets and alleys, public buildings and grounds, \$1,700; fires, fuel and firemen's salaries, \$400; officers' salaries, \$700; police salaries, \$700; miscellaneous, \$1,500; sewerage, \$1,000; judge city court, \$1,500. The following apportionment will be made of the special tax levy: Bonded indebtedness, \$2,000; interest on bonded indebtedness, \$1,000; public library, \$1,200.

**Woodstock.**—Owing to the efforts of ex-State Senator Albert J. Olsen the citizens of the town will no longer use a public stream as a sewer. Although Mr. Olsen began a damage suit the matter was settled out of court and next January an appropriation will be made for septic treatment of the sewerage.

**INDIANA, Evansville.**—Mayor Boehne's first tax levy for 1907 will be \$1.20. These are the figures that will be sent to the Council for ratification. Members of the Council, with the Mayor and Comptroller Nolan, have gone over the completed budget and it is understood it is satisfactory. The total levy is four cents in excess of last year's. The general purpose levy is three cents below last year's. The increases in special levies are for the new hose house, the Kentucky avenue sewer and the library appropriation.

**Galesburg.**—The Municipal Improvement Society, of which Dr. J. V. N. Standish is President, has a membership of 200. The society was organized five years ago and has been a leader in the work of beautifying the city.

**Indianapolis.**—The tax levy for 1907 will be 90 cents on the \$100, five cents more than in 1906. The police salary fund will be increased, owing to the addition of 55 men to the force. The Park Commissioners will also receive an appropriation allowing for the completion and maintenance of permanent improvements.

**Michigan City.**—The outgoing Board of Health suggests to the Council that the succeeding Board be composed entirely of physicians. It also instructed the police to prohibit bathing in the harbor. The recommendation was made that wagons handling meat shall be covered with clean white cloth and that the drivers be clothed in clean duck suits.

**Richmond.**—This will be the first city in the State to oil all of its macadamized streets as a substitute for sprinkling with water. A certain grade of crude petroleum, containing a high percentage of asphaltum will be used.

**INDIAN TERRITORY, Ardmore.**—Fire Chief Slaughter has arranged a device in connection with the telephone service that will save time and labor. When the alarm is turned into the station from the telephone office, the electric wire releases a lever which throws the drops from the chains, releasing at the same time the fire horses from their stalls, turning on the electric lights all over the Fire Department building and opening the doors.

**KENTUCKY, Louisville.**—The sum of \$152,000 is now available for the Oak street viaduct over the Louisville and Nashville and Illinois Central railroads; one will pay \$44,000, the other \$58,000, and the city has appropriated \$50,000 for the purpose.

The annual report of the Fire Department has been published; fire losses for the year ending August 31, amounted to \$229,785.94, and 38 firemen were injured.

**Paducah.**—For the first time since the filter plant was installed by the Paducah Water Company, a test of fire plugs has been made, and not one plug has been found to be clogged or defective in any way. Before the plant was installed the plugs were flushed monthly to prevent their clogging with mud.

**IOWA, Keokuk.**—The power company has spent \$50,000 in surveys and plans for a plant that will develop from 60,000 to 200,000 horsepower. The proposed dam across the Mississippi will be 6,000 feet long and 35 feet above low water level. The work may cost \$10,000,000 and require two years for completion. The full possible development will equal the power now utilized at Niagara.

**LOUISIANA, New Orleans.**—A charter amendment has been passed providing for a Water Commission of five citizens, to be elected by the City Boards,

for a term of five years. The members are to receive \$300 each per annum and are subject to removal for cause by the boards as are other officials chosen by them. They are to have full control of the operation of the waterworks, the appointment of all employees, the making of necessary additions and improvements, and are required to render quarterly reports to the municipal boards. The amendment was prepared by City Attorney W. E. Baskin, with a view to divorcing the operation of the system as far as possible from municipal politics.

**MAINE, Augusta.**—Highway Commissioner Sargent, in a circular letter to Selectmen of towns, gives the following record of the number of towns that have built State roads: 1901, 12 towns; 1902, 99 towns; 1903, 206 towns; 1904, 244 towns; 1905, 270 towns; 1906, 337 towns have made appropriations.

**MARYLAND, Baltimore.**—The Sewerage Commission's present efforts in connection with the sanitary sewers are being directed almost entirely toward securing land for the disposal plant. Once this is all secured work on the three biggest features of the system—namely, the disposal plant, which will cost over \$2,000,000; the outfall main, which will cost about \$1,000,000, and the pumping station, which will cost about \$500,000—will begin promptly. Preliminary to the construction of the pump-disposal plant, the Commission is getting ready to award a contract for an experimental disposal plant at Walbrook, where the sewage from more than 100 houses will be handled and treated.

**MASSACHUSETTS, Boston.**—The total population of the 33 cities of the State in 1905 was 2,024,325, amounting to 67 per cent. of the total population, the same proportion shown by the census of 1900. The valuation of urban real estate was \$1,974,088,202, and personal property, \$506,627,695, which was 75 per cent. of the total valuation for the State. The urban tax rate was \$17.11 per \$1,000—35 higher than the State average. The debt of these cities amounted to \$175,367,976, 87 per cent. of the total town and city debts; and the sinking funds, \$51,452,350. The net debt of 5 per cent. of the valuation amounted to \$61.21 per capita, as compared with an average for the State of \$49.11 per capita.

On September 17 Mayor Fitzgerald celebrated the 276th anniversary of the settlement of Boston by a harbor trip, on which he had as his guests members of the Board of Aldermen and Common Council and the heads of City Departments.

**Springfield.**—A cement walk of uniform color for a distance of 1,000 feet will be built on Maple street. This will be the longest walk of uniform color in the city. Gray, blue, pink, and natural stone alternate on some streets.

**Sterling.**—The Village Improvement Society during the past year has brought about the following improvements: Placing street signs; purchase of a piano for the Town Hall; prizes to school children for best gardens; keeping a public tennis court in order; grading and seeding a park, and placing rubbish barrels in suitable public places.

**MICHIGAN, Detroit.**—Secretary Hurlbut of the Park Department, in a communication to the Mayor, reports that the number of bathers this year has greatly increased. Last year, to September 10, there were 37,117 bathers, and this year, 72,094, the receipts being nearly 50 per cent. more than last year to date. This large increase in the number of bathers has cost more for maintenance.

**Grand Rapids.**—The Board of Education on a recent date received a report of a committee on the employment of nurses in schools. According to the plan the nurses will work in the schools during school hours and in the homes at other times, when necessary. They will endeavor to "detect and prevent infectious and contagious diseases, give immediate attention to minor ailments, look after uncleanliness, give instruction to parents in the care of children, recommend medical attendance when necessary and report unsanitary conditions in and around school buildings."

**Niles.**—Property owners surrounding Barren Lake threaten to restrain the Barren Lake Supply Company from taking more water from the lake. The claim is set up that owners of property surrounding a fresh-water lake or pond have rights and privileges which lowering the level would destroy.

**MINNESOTA, Minneapolis.**—Dr. P. M. Hull, Commissioner of Health, has made the suggestion that the Street Commissioners of each ward be instructed to cut down all growths of rag weed, goldenrod and other wild plants. He believes that the pollen of these plants is the principal cause of hay fever.

**St. Peter.**—Governor Johnson, at the Minneapolis Municipal Ownership meeting, said: "My observations on municipal ownership have, for the most part, been confined to my home State and my home town. Some years ago the residents of St. Peter took up this subject. At the first meeting fewer were present in proportion to the population of the town than there are here to-night in proportion to the population of Minneapolis, but before the climax was reached it was impossible to find a hall large enough to accommodate the crowds. St. Peter is now better lighted than any other town that does not own its plant. My own home was never more brilliant than it is now, and my bill never exceeds \$20 per annum. The same is true of a score of other towns in Minnesota."

**MISSOURI, Kansas City.**—The Health Department has received a supply of yellow cards to tack on the entrances to unclean restaurants, serving notice to the public that they are not fit to be patronized. Thus far the health officers have found no occasion to put up any of the signs.

**St. Louis.**—The Board of Public Improvements is arranging for the municipal parade on October 4. Heads of departments hope to have 5,000 men in line, including the following: Water Department, 600; Street, 2,000; Sewer, 160; Harbor and Wharf, 60; Park, 200; other departments, 1,200. There are to be five floats, representing the various departments.

**MONTANA, Fort Shaw.**—According to the plans of the irrigation engineers, this townsite is laid out in a perfect square, in the center of which is a tract of land containing about 2 1-2 acres, the dimensions being 356 feet by 300 feet, and which will be used for the location of the village school. This tract will be surrounded upon all four sides by streets 60 feet in width and from this center tract will radiate the principal streets of the town. Eight streets will extend out from the school lot to the boundaries of the townsite, one extending straight out from each corner of the school lot to the corners of the townsite with 40-feet roads extending out half way between these angling roads. About midway between the school house and the boundary will be 40-feet cross streets.

**MISSISSIPPI, Jackson.**—Official reports show that 500 wagons, on an average, enter the city each day over the Pearl river bridge from the country districts.

**NEVADA, Skiddoo.**—This is the anti-hoodoo name of the first town in Death Valley. Its altitude is 5,000 feet. A water pipe line has been surveyed to Tuba canyon. It is reported that \$70,000 worth of automobiles have been ordered to follow a line already surveyed from the Santa Fe Railway.

**NEW HAMPSHIRE, Claremont.**—The continued dry weather has caused much inconvenience. The city waterworks' upper reservoir has fallen nineteen feet, and what water remains will last only a little more than a week. Superintendent Rice says if rain does not come very soon it will be necessary to pump water from the wells on Kelsey meadow.

**NEW JERSEY, Jersey City.**—Subjects for discussion at a recent meeting of the Board of Trade were as follows: An appropriation of \$400,000 for a post office; municipal defects—dirty streets; post office patronage for stamps.

**Long Branch.**—Next year the Ocean Drive and Bluff Walk will be brilliantly illuminated by electric lights.

**Newark.**—At a conference of city officials over trunk sewer plans, City Engineer Sherrerd explained the question of screening the sewage. He referred to the work done at the outlets of the metropolitan sewers in Boston harbor. There, at an outlet carrying an amount equal to one-half the sewerage of the proposed Passaic sewer, the screens are iron bars across the mouth of the sewer. Every three hours the screens are cleaned and the refuse pressed and burned. The accumulation amounts to one cubic foot pressed.

**Paterson.**—Resolutions were adopted at the meeting of the Board of Aldermen which will enable the people to decide at the polls whether they want a municipal electric-lighting plant and a municipal water plant, and whether the police pension bill, which was passed at the last session of the Legislature, shall be adopted by the city.

**Trenton.**—The brick stack of the Trenton Crematory fell without warning. From the appearance of the ruins, it is believed that an explosion caused the accident.

**NEW YORK, Buffalo.**—After a public meeting at the Chamber of Commerce, in which the question of water supply was discussed by Col. Symons, Col. Ward, Mr. Sikes and others, the trustees of the Chamber of Commerce passed a resolution recommending that the City Council be requested to act promptly upon the bids received in accordance with the previous action of that body. The proposed work, which consists of an intake tunnel to Horseshoe Reef, will cost about \$1,300,000.

**Corning.**—The Johnson estate of 32 acres has been turned over to the Business Men's Association, which proposes to develop it and present it to the city for a park.

**Clayville.**—The Clayville Knitting Company has been granted a perpetual franchise to lay water mains to its factory and houses. The village is allowed the free use of hydrants to extinguish fires.

**New York.**—J. Waldo Smith, Chief Engineer to the Board of Water Supply, reports that the final choice of a site for the great Ashokan dam has been made, Olive Bridge being designated. It was announced that within three years sixty million gallons of water a day would be added to New York's water supply by means of the erection of part of the aqueduct work around Hunter's Brook and the Shoap river, by which the Peekskill creek water will be pumped into the Croton aqueduct.

A \$12,000,000 city filtration plant is to be constructed at the Jerome Park reservoir very soon, and it will be one of the largest in the world. This plan has been decided on by Water Commissioner Ellison, to whom the Board of Estimate some time ago gave permission to go ahead with plans for a plant on a \$17,000,000 basis. The plant is to be built over the Jerome Park reservoir, completely covering it. Sand filters will do the work, and their capacity is expected to be 380,000,000 gallons daily. It was decided by the department that all reservoirs will have to be covered. A \$12,000 experimental plant will also be erected.

New York is at once to have the benefit of the enforcement of the act known as the Pure Food bill, adopted by the United States Congress last June, although it does not become effective as a National statute until January 1, 1907. The Board of Health has adopted the statute as a model law and incorporated parts of the measure in the city's Sanitary Code.

The report of the commission appointed by the Mayor in the spring to make recommendations to revise the city's salary list has been submitted to the Board of Estimate. It favors the elimination of many useless offices. The report shows that the city has 48,033 employees, whose salaries foot up to \$57,068,253.

**Rochester.**—On the return of the Mayor from Buffalo with Commissioner Elwood and City Engineer Fisher, he declared that it was the conviction of the Buffalo officials that there was no profit in a garbage reduction plant operated with a view of making by-products; that the only successful plant was one that disposed of the garbage entirely.

Fire Marshal Walter has inspected water tanks on 47 buildings. Of these, 14 were found to be in a dangerous condition.

**NORTH CAROLINA, Wilmington.**—The Waterworks Commission has reported as follows to the Mayor: "In accordance with your instructions, the Waterworks Commission has made an offer of \$70,000 to the Clarendon Waterworks Company in behalf of the city for its plant, this offer not including the standpipe or the filter plant. This offer has been declined. We attach letter from the company. The Waterworks Commission will now take such steps as will be necessary to carry out your instructions passed at a former meeting of the Board of Aldermen, to take the necessary steps for the initiatory of a new waterworks system."

**NORTH DAKOTA, Fargo.**—The appropriation ordinance, amounting to \$90,000, has been passed. Some of the amounts are as follows: Police, \$10,000; fire, \$10,500; aerial truck, \$3,000; streets and bridges, \$10,000; paving, \$1,000; lighting, \$10,000; engineering, \$3,000; printing, \$1,200; sprinkling, \$1,000; insurance, \$500; City Hall maintenance, \$1,630; parks, \$2,500; sewers, \$500; health, \$1,500; library, \$3,000; milk inspection, \$1,200; sinking fund, \$4,000; interest, \$6,150.

**OKLAHOMA, Texola.**—A commercial club has been organized with C. E. Sumner as President. The city is located on the line between Oklahoma and Texas and was once included in Texas.

**OREGON, Portland.**—Mayor Harry K. Lane, a practicing physician, on entering office discharged a number of the employees of the detective force. He has closed gambling houses and concert halls.

**PENNSYLVANIA, Altoona.**—The plans of the trolley company concerning proposed extensions to the system have been held in abeyance during the summer because the city has refused to issue permits. For a long time the trolley company has had differences with the city Water Department, the latter alleging that the

water mains in various parts of the city have been greatly damaged by electrolysis. The mains, where they are under the line of the railway tracks, have burst in numerous instances, and investigation has shown the pipe to be badly eaten.

**Hamburg.**—Because the citizens refused to appreciate their efforts and because of the professional and public lack of co-operation in fighting the epidemic of typhoid fever, the Board of Health resigned in a body following a lengthy meeting in which their reasons were drawn up in a notice which was sent to Council.

**Harrisburg.**—At a meeting of the botany section of the National History Society Dr. I. M. Weills gave a talk on some of his personal observations on trees for city streets. "Hickory, sugar maple and walnut trees," he said, "always require good soil for their growth and develop a large tap-root growing straight downward. They grow to be solid and firm trees and are not frequently injured. Oaks can grow on poor soil, but also have large tap-roots, while the beech, poplar and allanthus grow roots spreading sidewise and only slightly below the surface of the earth. They, therefore, in this city bulge the pavements upwards and are easily blown over in storms."

**Pittsburg.**—City Building Inspector S. A. Dies is sending out about 250 final notices to owners of tenement and flat buildings, informing them that unless they at once equip the buildings with fire escapes, as the State law and city ordinance require, prosecutions will follow. The law stipulates that every three-story building housing three or more families must be provided with fire escapes, as must every building used for dwelling house purposes that is four stories or more in height.

**RHODE ISLAND, Pawtucket.**—The Board of Aldermen and the Common Council have accepted the report of the joint committee selected to inquire into the ice situation. The committee finds that the ice companies were not only not justified in increasing the price of ice to consumers on August 21, but that they were not justified in increasing the price last spring over the price of the previous spring to such an extent as they did. The report favors the establishment of a municipal ice plant.

**SOUTH CAROLINA, Columbia.**—The Bell Telephone Company has received twelve carloads of material for its new conduits. The wires on Main street will be placed under ground, in accordance with plans approved by the City Engineer and Council.

**SOUTH DAKOTA, Rapid City.**—Although building operations are active, many people, from necessity, are camping in tents. An agent who had a house to rent had 27 applicants for it. A cement mill, about to be constructed, is partly responsible for the activity.

**TENNESSEE, Knoxville.**—The Police Department surprised the coal dealers of the city one day recently by picking up wagons belonging to the various coal companies and driving them to the city scales and weighing the coal, according to the Brownlee coal weighing ordinance. One wagon is alleged to have been short four bushels, and others light in weight.

**TEXAS, Dallas.**—Forest avenue is to be one of the finest streets in the city. The street at present is 120 feet wide between property lines. The walks now are ten feet wide. The owners ask to have the width increased by seventeen and one-half feet on each side, making the sidewalk widths twenty-seven and one-half feet. This will leave a street of sixty-five feet between curbs. The car lines agree to put their tracks further

apart, to place center poles for the support of the trolley lines and to pave a width of twenty-five feet. This will leave a strip twenty feet on each side to be paved by the property owners and the city.

**Fort Worth.**—Owing to complaints about the blocking of sidewalks, Mayor Hains has been making personal investigations. The trouble seems to be that ordinances were too severe, the consequence being that they were not enforced.

**UTAH, Salt Lake.**—The Utah Light and Railway Company has recently received an electric locomotive from the Baldwin Locomotive Works. The company has a contract to supply macadamizing materials for the city streets; the locomotive is especially valuable for the work on the hills. It will do the work of two dozen gravel wagons.

**VERMONT, St. Albans.**—Another step toward a municipal housecleaning is under way. The City Council has distributed about the streets cans for waste paper and refuse that have been generously given to St. Albans by a public-spirited citizen.

The city Health Officer has received from Dr. B. H. Stone, of the State Laboratory of Hygiene, Burlington, analyses of water samples taken from the gate houses of the two local reservoirs. This examination indicates that the greater part of the trouble, with respect to the disagreeable odor and taste, is in the upper reservoir. The report on the sample from the gate house of this reservoir is, microscopically, found to contain amorphous matter and crustacea. The microscopical examination of the water from the lower gate house shows negativeness. In both samples free ammonia is high, suggesting decaying vegetation. Colon bacilli are absent in both. In the water from the lower gate house the number of bacteria per cubic centimeter at room temperature is 600, and at blood temperature, 10. The corresponding figures for the upper reservoir are 300 and 4. This report makes it apparent that the thorough cleaning out and whitewashing of both gate houses (now being done), where the evidences of decaying algae vegetation are found, would perhaps remedy the present evil.

**VIRGINIA, Norfolk.**—Maj. Richard Sylvester, Chief of Police of Washington, having become much interested in the Norfolk Police Department during his recent visit to this section, has offered to send one of his trained Bertillon men to Norfolk to introduce the system in this city. The offer has been accepted and a District man to be assigned by Maj. Sylvester will arrive at an early date for the purpose of instructing the Norfolk police in the Bertillon measurements.

**Roanoke.**—The Government expert who made an examination of the water supply of the city has reported that the water supplied from Crystal Spring and the Vinton Water Company is pure, but several springs contain dangerous germs.

**WASHINGTON, Seattle.**—By the passage of an ordinance the City Council decided to reject all bids for the construction of the Municipal Building, planned as a city jail, municipal court and emergency hospital, and to construct a three-story reinforced concrete building by day labor.

**WEST VIRGINIA, Wheeling.**—Mrs. W. A. Wilson, President of the Woman's Civic Club, reports the following improvements which the club has been instrumental in carrying out: One hundred wire baskets placed as receptacles for rubbish; enforcement of anti-spitting ordinance; securing of pure milk; celebration of Arbor Day.

**WISCONSIN, Eau Claire.**—The City Council has accepted the proposition to purchase the Eau Claire Waterworks for \$235,000, the price agreed on by arbitrators. This action was made possible by a guarantee on the part of some prominent citizens that the necessary bonds would be taken at a certain price and rate of interest.

**Racine.**—Mayor Nelson and City Engineer Connolly have been examining the ground for a lake shore park. They favor the purchase of the whole north beach for a width of 200 feet. The grading of the park could be carried on in conjunction with the grading of certain thoroughfares already determined on.

**Superior.**—Mayor Linley has sent out letters requesting information about electric lighting as conducted under city management. When received, the Municipal Ownership Committee will make recommendations on the question of a city electric-lighting plant.

## IN OTHER LANDS

**CANADA, Hamilton.**—The report of Engineer McFarlane for the month of August shows that there was an increase of 8 per cent. in the water consumption, and 15 per cent. in the amount of fuel used. The increased consumption of coal he accounts for by the fact that the water had to be pumped through the small mains while repairs were being made to the large pipes.

**Toronto.**—City Engineer Rust states that the new septic sewage system just south of the Woodbine tracks will be in operation before Christmas. The three septic tanks, 80 feet long by 20 feet wide, have been tested by being filled with water. The beds are made 9 feet deep, and concrete bottom and sides capable of sustaining a weight of 2,000 tons.

**Winnipeg.**—Premier Roblin states his policy in regard to telephones in the following words: "I believe that the telephone is a public utility, is a public necessity, and therefore should be secured to every citizen within the country at cost; that no profit should be permitted on a utility of this kind to a private citizen or a corporation. Each municipal corporation shall be called upon at the next municipal election to declare whether they are in favor of a municipally owned telephone system or whether they prefer a corporation owned one. In effect, if they declare for municipally owned telephones and this works out to completion, each municipality will organize a telephone system and have a central office, including the city of Winnipeg, and the payment for the construction of such telephone system is to be provided by an issue of debentures by the municipality, to be guaranteed by the Government, and the interest on such debentures and the cost of maintaining the system when so organized are to be borne entirely and exclusively by the subscribers or clients of such system."

**ENGLAND, St. Helens.**—The following fair wages clause was selected from among eighty for insertion in future contracts: "The contractor shall pay his workmen not less than the minimum standard rate of wages in the district for each class of labor respectively, and shall observe the recognized hours and conditions of labor generally."

**FRANCE, Paris.**—By a police order now in operation, laundries must disinfect all garments as soon as they are received. Clothes must be conveyed to the laundry in hermetically sealed bags, and, on their arrival, be scalded in an antiseptic solution. The work people are to wear special clothes, which also are to be disinfected.

## CORRESPONDENCE

*Editor, MUNICIPAL JOURNAL AND ENGINEER.*

Flatiron Building, New York City.

Dear Sir:—I note in the New York papers statements that ruts are appearing in the wood-block roadways of the Williamsburg Bridge. We are considering adopting such paving for one of our bridges. Can you tell me why these ruts have appeared? Also what company laid the pavement?

Yours truly,

F. M.

**ANSWER.**—This pavement was laid by the U. S. Wood Preserving Company. In answer to inquiry on our part, this company replies as follows:

*Editor MUNICIPAL JOURNAL AND ENGINEER*  
Flatiron Building, New York City.

Dear Sir:—Replies to your letter with reference to ruts appearing in the roadways of the Williamsburg Bridge, which roadways were laid by our company, beg to say that on the steel channels on which the block were laid there were placed at intervals of every ten feet angle irons running across the roadway, these angle irons being bolted through the interstices of the channels. The idea of the Bridge Department was to confine the pavement in 10-foot sections so as to avoid any possible damage to the structure on account of swelling. The blocks were then laid as closely as possible up to these angle irons, but the action of traffic, it being all in one direction on one roadway and in the opposite direction on the other, has tended to crowd the block away from the angles on the graded portions of the roadways, thus leaving ruts of greater or less width across the roadways every ten feet or where the angles were placed. You will readily see that the pavement is not at fault. Trusting the above explanation will be satisfactory, we are,

Yours very truly,

United States Wood Preserving Co.,

F. A. KUMMER, Chief Engineer.

*Editor, MUNICIPAL JOURNAL AND ENGINEER.*

Flatiron Building, New York City.

Dear Sir:—Can you tell me how Cedar Rapids compares with other cities of its size, especially those further east, as to proportion of frame and stone buildings? I desire this information in connection with a comparison of fire insurance rates.

Yours respectfully,

J. A.

**ANSWER.**—From the statistics of the National Board of Fire Underwriters we quote the following, selections being made at random:

City	Population	NUMBER OF BUILDINGS		
		Brick or Stone	Frame	Total
Cedar Rapids.....	28,759	660	5,550	6,210
Council Bluffs.....	25,231	650	5,920	6,570
Everett, Mass.....	29,108	41	5,478	5,519
Gloucester, Mass.....	26,006	87	5,456	5,543
Pittsfield, Mass.....	25,000	425	3,900	4,325
Quincy, Mass.....	28,067	47	5,775	5,822
Waltham, Mass.....	26,239	90	3,500	3,590
Newport, R. I.....	25,039	225	5,300	5,525
New Britain, Conn.....	28,506	525	3,640	4,165
Norwich, Conn.....	25,000	700	4,200	4,900
Auburn, N. Y.....	31,423	963	8,047	9,010
Jamestown, N. Y.....	26,160	362	6,058	6,420
Watertown, N. Y.....	25,447	500	4,530	5,030
Norristown, Pa.....	22,263	4,900	500	5,400
York, Pa.....	33,654	6,650	3,600	10,250
Newport News, Va.....	25,000	777	3,486	4,263
Sandusky, O.....	23,000	1,550	3,850	5,400
South Bend, Ind.....	36,000	1,701	4,023	5,724
Elgin, Ill.....	22,433	803	7,171	7,974

### PERSONALS

ADAMS, WILLIAM H., Alderman of Richmond, Va., has been elected chairman of the Committee on Streets; Alderman James B. Wood, chairman of the Finance Committee, and Alderman E. W. Miner, chairman of the Light Committee.

ANDERSON, THOMAS F., a well-known newspaper man of Boston, Mass., has been appointed manager of the Publicity Bureau which will work for a "Bigger, Better and Busier Boston," for which the City Council recently appropriated \$50,000.

BLISS, CHARLES H., Mayor of Pensacola, Fla., visited his old home at Auburn, Ind., recently, and also stopped off at other cities to study the street-paving question.

BUCK, RICHARD S., Consulting Engineer to the Department of Bridges, New York City, has become a member of the firm of Sanderson & Porter, the other members being Edwin Sanderson, H. Hobart Porter, Francis Blossom and Richard Talbot.

DELGER, MRS. ERNESTINA, of Oakland, Cal., has sent a check for \$100 to Mayor Mott to be used in assisting in the improvement of City Hall Park.

EAGER, C. B., of Los Angeles, Cal., constructing engineer, who has charge of the \$3,000,000 breakwater being constructed by the government at San Pedro, asserts that the rebuilding of San Francisco should be done on the percentage basis by contractors, on account of the uncertain condition as to labor and material.

FOBES, ARTHUR A., for fifteen years City Engineer of Pittsfield, Mass., has resigned.

GALLIVAN, HARRY, has been appointed Chief of the Fire Department of Muncie, Ind., to succeed John Casey, owing to a change in the city administration.

HILL, JOHN W., Chief Engineer of the Waterworks Department of Cincinnati, O., has resigned, and has recommended Anton Herschede to be his successor. Engineer George Hornung, of Cincinnati, and Engineer L. M. Holman are mentioned for the place.

JACKSON, GEORGE W., has resigned as engineer of the Illinois Tunnel Company, which carries a salary of \$75,000 a year. He is but forty-five years of age, but has accomplished engineering feats, among which was the designing and constructing of 46 miles of subway under the Chicago river, at a cost of \$50,000,000. After a tour of England and France, Mr. Jackson will act as consulting engineer for several railroads and corporations.

KOONS, M. W., has been appointed chairman of the Street Committee of the City Council of Mt. Vernon, O., which will decide on the kind of material to be used in paving East High street and other thoroughfares.

LEVY, B. P., has been appointed Assistant City Engineer of East St. Louis, Ill., to succeed George H. Meck, who has become connected with a private concern.

MARK, EDWARD R., former assistant to Chief Engineer T. A. Leisen, of the Water Department of Wilmington, Del., has been elected Park Superintendent, Engineer and Secretary to the Park Board of the city, to succeed Alexander J. Taylor, who has been made Sewer Engineer, succeeding George Rommel, Jr.

MEAD, D. W., of Chicago, has been selected as engineer-in-charge of the construction of the new water system at Decatur, Ill.

PEARCE, DR. H. M., member of the Health Board of Urbana, O., has made an inspection of the sewage disposal plants of a number of cities and reported his findings to the City Council with a view to the establishment of a plant at Urbana.

POTTER, ALEXANDER, of New York City, is considering a proposition to become Consulting Engineer for the city of Niles, O., in the construction of a sanitary sewerage system.

POWELL, WILLIAM, an inspector in the Sewer Department of Youngstown, O., has been appointed General Superintendent of the department, an office newly created by the Board of Public Service.

ROMMEL, GEORGE, JR., has resigned as Chief Engineer of the Street and Sewer Department of Wilmington, Del., to take charge of the sewerage work of Pensacola, Fla. At a banquet tendered him by members of the department, Andrew S. Johnson, President of the body, presided, and speeches were made by Col. C. M. Leitch, President of the City Council, and Andrew J. Taylor, who succeeds Mr. Rommel. A handsome Masonic charm was presented the retiring official.

SHANER, HARRY L., has been reelected City Engineer of Lynchburg, Va.

SWEENEY, JOHN T., President of the Board of Aldermen, and Hubert Snowden, President of the Common Council, were re-elected, as were all the other officers, at the recent organization of the new City Council of Alexandria, Va.

TIMANUS, E. CLAY, Mayor of Baltimore, Md., is in receipt of a letter from H. Minakami, Mayor of Kobe, Japan, acknowledging receipt of municipal reports of the Maryland city and expressing thanks for "the most valuable and instructive documents of your prosperous municipality."

WEBB, M. L., Mayor of Hugo, I. T., resigned at a recent meeting of the City Council, and the body immediately went into executive session and elected Dr. R. L. Jones, a former Mayor, to fill the unexpired term.

YEAGER, THOMAS B., has been appointed Chief of the Fire Department of Owensboro, Ky., to succeed O. J. Johnson, who has been reduced to the post of electrician.

### Some Unusual Fires

BROCKTON, MASS.—Paint and oil department of a hardware store burned, September 7. Fourteen families and forty-five lodgers, dazed by smoke, were rescued.

BURLEY, IDAHO.—Opera house and other buildings burned, September 4. Cause, lighted cigarette and a can of gasoline. Damage, \$40,000.

DETROIT, MICH.—Anderson Carriage Company's paint shop and stockroom burned to the ground, September 8. Several firemen injured. Damage, \$75,000.

DYERSBURG, TENN.—Grain elevator and mill of H. A. Klyce burned, September 3. Cause, spark left in elevator boot when plant was shut down. Damage, \$115,000.

OAK PARK, ILL.—A dozen houses struck by lightning and partly burned during an electrical storm, September 2. Chicago Fire Department called on for assistance. Damage, \$20,000.

ST. LOUIS, MO.—Grocery store of J. W. Burgess burned, September 7. Cause unknown. Gasoline explosion injured Chief Barry and ten others.

WALCOTT, KAN.—Power house of the Kansas City and Leavenworth Electric Railway burned, September 3. Cause unknown. Damage, \$300,000.

## THE WEEK'S CONTRACT NEWS

**Relating to Municipal and Public Work—Street Improvements—Paving, Road Making, Cleaning and Sprinkling—Sewerage, Water Supply and Public Lighting—Fire Equipment and Supplies—Buildings, Bridges and Street Railways—Sanitation, Garbage and Waste Disposal—Police, Parks and Miscellaneous—Proposals and Awards**

### BIDS ASKED FOR

STATE	CITY	RECEIVED UNTIL	NATURE OF WORK	ADDRESS INQUIRIES TO
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#### Street Improvements

Indiana.....	Fort Wayne.....	September 27.....	Asphalt paving, cement walks, grading.....	E. J. Lennon, Chmn. Bd. Pub. Wks.
New York.....	Albany.....	September 27.....	Three roads, 21,083 miles.....	Henry A. Van Alstyne, State Engr.
Iowa.....	Des Moines.....	September 28, 11 A.M.....	Laying 1,332 sq. yds. sheet asphalt pavement on 5-inch concrete foundation.....	Board of Public Works.
Ohio.....	Cincinnati.....	September 28, noon.....	Grading, concrete curb gutter and crossings, and macadamizing Fifth avenue.....	M. J. Keefe, Clerk Bd. Pub. Service.
Indiana.....	Terre Haute.....	September 29, 11 A.M.....	Grading and graveling 13,100 ft. road.....	Jerome W. Denchie, Co. Auditor.
Wisconsin.....	Superior.....	September 29.....	Paving and macadamizing.....	N. B. Paddock, Clk. of Board.
Ontario.....	Guelph.....	September 29.....	Laying 8,000 to 10,000 ft. cement walk.....	Richard Mitchell, City Clerk.
Florida.....	Fort Dade.....	October 1, 7 P.M.....	Brick roads and concrete walks.....	Lt. R. H. Jordan, Quartermaster.
Washington.....	Stevenson.....	October 1, 1 P.M.....	Grading State road No. 8.....	Skamania County Commissioners.
Illinois.....	Mt. Vernon.....	October 1.....	One mile of vitrified paving.....	C. B. Wells, City Engineer.
Florida.....	Jacksonville.....	October 1, 3 P.M.....	Grading, curbing and paving, vitrified brick or block and macadam to cost \$300,000.....	Philip Prioleau, City Engineer.
Tennessee.....	Clinton.....	October 1, 1 P.M.....	Constructing 13 3-10 miles pike road.....	J. K. P. Wallace, Pike Commissioner.
Alabama.....	Montgomery.....	October 1, noon.....	Paving Pelham and Carolina Streets.....	R. S. Williams, City Treasurer.
Georgia.....	Atlanta.....	October 1, 3 P.M.....	Resurfacing 33,000 yds. asphalt or bitulithic, repaving 4,000 yds. asphalt and paving 2,350 yds. asphalt or creosoted blocks.....	
North Dakota.....	Fargo.....	October 1, 5 P.M.....	Cedar block paving 15,000 sq. yds. curbing, 6,000 lin. ft. gutters, etc.....	R. M. Clayton, City Engineer.
Pennsylvania.....	Gettysburg.....	October 1.....	Grading and piking roads, 12,661 ft. long, 18 ft. wide, in Park.....	N. C. Morgan, City Auditor.
Indiana.....	Salem.....	October 1, 1:30 P.M.....	Constructing 3,150 ft. road.....	John P. Nicholson, Chmn. Gettysburg Nat. Park Com.
Indiana.....	Valparaiso.....	October 1, noon.....	Constructing 12,110 ft. gravel road.....	Washington County Commissioners.
Louisiana.....	New Orleans.....	October 1, 1 P.M.....	Asphalt paving, curb, gutter, walks, etc.....	Stephen P. Corboy, County Auditor.
Indiana.....	Bedford.....	October 2, 1 P.M.....	Constructing ten roads, 91,385 ft.....	Chas. R. Kennedy, City Comptroller.
Indiana.....	Bloomington.....	October 3, 11:30 A.M.....	Three pike roads.....	Walter G. Owen, Co. Auditor.
New Jersey.....	Atlantic City.....	October 3, 11:30 A.M.....	Constructing gravel road, 6 1/2 miles.....	Samuel Kerr, County Auditor.
Indiana.....	Decatur.....	October 5, 10 A.M.....	Constructing two macadamized roads.....	E. D. Rightmire, County Engineer.
Ohio.....	Canton.....	October 5.....	8,300 yds. brick paving, 3,000 ft. curb.....	Adams County Commissioners.
Ohio.....	Cleveland.....	October 6, 11 A.M.....	Completing Schaaf road improvement.....	B. F. Faust, Clk. Bd. Pub. Service.
Ohio.....	Cincinnati.....	October 8, noon.....	Werk-rd., grade, curb, macadamize, etc.....	Julius C. Dorn, Clerk County Com'r's.
Virginia.....	Manassas.....	October 10.....	Macadamizing.....	O. E. Newman, Chairman.
Ohio.....	Steubenville.....	October 12.....	Paving Washington Street with brick.....	T. W. Vance, City Clerk.
Ohio.....	Cincinnati.....	October 12, noon.....	Gravel and crushed stone on roads.....	Fred Dreihls, Clerk County Com'r's.

#### Water Supply

New York.....	New York.....	September 27, 3 P.M.....	Pumping plant and low-pressure heating apparatus, Forest Park.....	Moses Herrman, Pres. P'k Com'rs.
Ohio.....	Toledo.....	September 27, noon.....	Two duplex pumps, condensers, valves, etc.....	Board of Public Service.
Wisconsin.....	Milwaukee.....	September 27, 10:30 A.M.....	Laying 42-in. pipe in Eighteenth Ward.....	Charles J. Poetsch, City Engineer.
Kansas.....	Garden City.....	September 28, 2 P.M.....	Wells, pumping plant, etc.....	Chief Engineer, Reclamation Service, Washington, D. C.
Ohio.....	Cincinnati.....	September 28.....	Apparatus for filtration plant and settling reservoirs, laying pipe.....	Aug. Herrmann, Board of Trustees.
Illinois.....	Waukegan.....	September 28.....	Laying cast-iron pipe.....	W. S. Bullock, Board Local Imp't.
Missouri.....	Kansas City.....	September 28.....	Install two water-tube boilers, each 300 h. p.	Everett Elliott, Sec. Bd. Pub. Wks.
Michigan.....	Chelsea.....	September 29.....	3,000 ft. 4-in. mains and connections.....	W. H. Heselschwerdt, City Clerk.
Washington.....	Walla Walla.....	September 29.....	Supplying 100 hydrants.....	R. F. McLean, Register.
North Dakota.....	Grand Forks.....	October 1, 4 P.M.....	Water main extensions.....	W. V. O'Connor, City Auditor.
New York.....	New York.....	October 1.....	Aqueduct, 35-mile section.....	Municipal Water Commission.
New York.....	Cohoes.....	October 1, 8 P.M.....	Triplex water-power-driven pump, 4,000,000 gallons capacity.....	Henry L. Shaver, President Board of Water Commissioners.
Virginia.....	Edinburg.....	October 2, noon.....	Gravity system of water works.....	W. A. Wrenn, Chairman.
Florida.....	Jacksonville.....	October 4, 3 P.M.....	Pumping engine, 8,000,000 gallons capacity; max. head, 270 feet.....	R. N. Ellis, Superintendent.
Louisiana.....	Crowley.....	October 5.....	Water works plant.....	George H. Horton, City Clerk.
New York.....	Lockport.....	October 8, 8 P.M.....	Complete water works system.....	E. S. Bennett, City Clerk.
Virginia.....	Manassas.....	October 10.....	Water works plant.....	O. E. Newman, Chairman.
Illinois.....	Chicago.....	October 10, 11 A.M.....	350 ft. water pipe tunnel under Chicago River	Wm. L. O'Connell, Com'r Pub. Wks.
Nebraska.....	Ft. Snelling.....	October 10.....	Constructing addition to pump house and furnishing boiler and feed-water heater.....	Capt. Wm. D. Davis, Q. M.
Ohio.....	Lima.....	October 10.....	Pumps, 6,000,000 gal., max. 70 lbs.....	L. L. Crumerine, Sec. Bd. Pub. Serv.
Texas.....	Ft. Bliss.....	October 15, noon.....	Sinking 12-in. tubular deep well, installing pump and constructing shelter and trestle 150,000 gal. steel tank on 70-ft. trestle.....	Lt. C. Schudt, Quartermaster.
Indian Territory.....	South McAlester.....	November 1.....	Extending mains.....	Geo. Wilcox, City Engineer.

#### Sewerage

Minnesota.....	Brainerd.....	September 27.....	System of sewers.....	Charles J. Poetsch, City Engineer.
Wisconsin.....	Milwaukee.....	September 27, 10:30 A.M.....	Sewers in West and South Districts.....	Board of Public Works.
Iowa.....	Des Moines.....	September 28, 11 A.M.....	Septic tank and sludge bed.....	Board of Public Works.
Iowa.....	Des Moines.....	September 29, 11 A.M.....	21,500 feet sewers, 8 to 30-inch.....	Wm. Charles, Jr., City Clerk.
Ohio.....	Perrysburg.....	September 29.....	15-in. storm sewer, Louisiana Avenue.....	R. S. Williams, City Treasurer.
Alabama.....	Montgomery.....	October 1, noon.....	Storm sewers, curb, High and South Bainbridge Streets.....	F. E. Foster, City Clerk.
Iowa.....	Iowa Falls.....	October 1, 7 P.M.....	1,620 ft. 8-in. vitrified sewer.....	C. F. Green, City Clerk.
Illinois.....	Mt. Vernon.....	October 1.....	Half mile 10, 12 and 14-in. vitr. sewer pipe, cost, \$20,000.....	

## Sewerage—Continued

Nebraska.....	Fairbury.....	October 1.....	2,016 ft. 8-in. tile laterals, cost \$1,700.....	F. L. Rain, City Clerk.
Pennsylvania.....	Narberth.....	October 1, 8 P.M.....	Sewerage system.....	E. C. Hawley, Clerk of Council.
New Jersey.....	Plainfield.....	October 1.....	Constructing sanitary sewers, 6,265 8-inch vitrified pipe, 7,675 8- to 14-inch cast-iron sewer, and pumping plant; also for 550 feet storm sewer.....	
District of Columbia.....	Washington.....	October 2, noon.....	Constructing sewers.....	Andrew J. Gavett, City Surveyor.
Nebraska.....	Omaha.....	October 2.....	Relief main sewer, 4,500 ft. brick or concrete.	Board of Commissioners.
North Carolina.....	Fayetteville.....	October 3, noon.....	Sewer system.....	Andrew Rosewater, City Engineer.
Ohio.....	St. Marys.....	October 3, noon.....	Sanitary sewer system, 15 miles.....	W. N. Tillinghast, Clerk Public Works Commissioners.
Maryland.....	Baltimore.....	October 3, 11 A.M.....	Building-testing plant, laboratory and laying sewers.....	H. W. Stearns, Clk Bd Pub. Service
New York.....	Buffalo.....	October 4, 11 A.M.....	Constructing 12- and 10-inch tile sewer.....	Harry W. Rodgers, Sec'y Sew. Com.
Ohio.....	Canton.....	October 5.....	2,000 ft. storm and 3,600 ft. 8-in. sanitary sewers, 10 catch basins.....	F. G. Ward, Com'r Public Works.
New York.....	Fort Ontario.....	October 6, 11 A.M.....	Constructing storm water drain.....	B. F. Faust, Clerk Board Pub. Serv.
Louisiana.....	Crowley.....	October 5.....	Sewerage system.....	Henry H. Hall, Quartermaster.
Ohio.....	Willoughby.....	October 8, noon.....	Main line and trunk sewer, mile long.....	George H. Horton, City Clerk.
South Carolina.....	Orangeburg.....	October 15.....	Sewer system, to cost \$50,000.....	C. C. Jenkins, Village Clerk.
Illinois.....	Rock Island.....	October 31.....	Sewers and drains, District No. 2.....	Edward Hawes, Jr., City Engineer.
New Jersey.....	Fort Lee.....	November 1.....	Sewer system, to cost \$100,000.....	Geo. W. McCaskrin, Pres. Bd.
Indian Territory.....	South McAlester.....	November 1.....	Sewer system, to cost \$25,000.....	Dan'l W. McAvoy, Mayor.
				J. M. Gannaway, City Clerk.

## Bridges

Ohio.....	Troy.....	September 28.....	Superstructure of swing bridge.....	E. E. Pearson, County Auditor.
Wisconsin.....	Sparta.....	September 28.....	80-ft. steel bridge with 4 spans.....	C. E. Simpson, Chm. Bridge Com.
Kansas.....	Kansas City.....	September 29.....	Steel bridge.....	Wyandotte County Com'rs.
Indiana.....	Rushville.....	September 29, 2 P.M.....	Three concrete culverts.....	Charles B. Lyons, Commissioner.
Georgia.....	Rome.....	October 1.....	Bridge, 60-ft. span, 50-ft. trestle.....	J. F. Hillyer, County Clerk.
Mississippi.....	Greenville.....	October 1, noon.....	Steel bridge over Yazoo at Belzoni.....	T. H. Hood, County Clerk.
Indiana.....	Frankfort.....	October 1, 2 P.M.....	Constructing and repairing bridges.....	W. A. Irwin, Engineer.
Pennsylvania.....	York.....	October 1, 10 A.M.....	Steel bridge over Codorus creek.....	C. B. King, Clerk County Com'rs.
Nebraska.....	Beatrice.....	October 2.....	Six steel bridges.....	B. H. Conlee, County Clerk.
Illinois.....	Peoria.....	October 2, noon.....	Scherzer rolling lift bridge.....	E. A. Furry, Com'r Public Works.
Kansas.....	Holton.....	October 2, 1 P.M.....	Two steel bridges.....	N. P. McConnell, Co. Clerk.
Georgia.....	Rome.....	October 2.....	60-foot steel span bridge.....	J. F. Hillyer, Clerk, Com's of Roads.
Missouri.....	Carrollton.....	October 2, 1 P.M.....	Building seven bridges.....	W. J. Leathem, Bridge Com'r.
Oregon.....	Elk City.....	October 3, 10 A.M.....	Rebuilding bridge approach.....	Ira Wade, County Clerk.
Rhode Island.....	Bradford.....	October 3, 11 A.M.....	Three bridges and trestle.....	Wm. S. Cowles, Navy Dept., Washington, D. C.
South Dakota.....	Mitchell.....	October 3, 1 P.M.....	80-foot steel bridge.....	O. D. Stearns, Co. Auditor.
Indiana.....	Michigan City.....	October 4.....	Bascule bridge, Franklin street.....	H. M. Miles, City Engineer.
Ohio.....	Dayton.....	October 4, 11 A.M.....	Erect two automatic swing bridges, and remove old bridge.....	T. J. Kaufman, County Auditor.
Ohio.....	Sandusky.....	October 5, 1 P.M.....	Superstructure three bridges: spans, 160; 73, and 153 feet; also repair abutments; 253-ft. steel bridge.....	J. N. Traxler, County Auditor.
California.....	Daggett.....	October 8.....	Steel or concrete bridge.....	Board of Supervisors.
Virginia.....	Berryville.....	October 10.....	Construct sub-structure and approaches.....	P. McCormick, Secretary.
New Brunswick.....	Hawkhaw.....	October 15.....	Three-span bridge, 465 feet long.....	C. H. La Billois, Dept. Public Works.
Georgia.....	Powers Ferry.....	October 25, 11 A.M.....	Three steel span bridge, 365 feet long.....	Clerk Road Commissioners, Atlanta.
Georgia.....	Johnson's Ferry.....	October 25, 2 P.M.....		Clerk Road Com'res, Atlanta.

## Public Buildings

Iowa.....	Woodward.....	September 29.....	Two-story schoolhouse.....	C. D. Hoon, Clerk.
New York.....	Albany.....	October 1, 3 P.M.....	Erecting Public Bath No. 3.....	Isidore Wachsmann, Clerk, Board.
Indiana.....	Kendallville.....	October 2, 6 P.M.....	Combined City Hall, police station, fire-house.....	R. K. Schutt, Arch., South Bend.
New York.....	Madison Barracks.....	October 2, 11 A.M.....	Constructing Commanding Officers' Quarters.....	Constructing Quartermaster.
Oklahoma.....	Guthrie.....	October 2.....	Three-story stone or brick Court House, cost, \$300,000.....	John B. Favors, Chm. Co. Com'rs.
California.....	San Jose.....	October 2, 10 A.M.....	Reconstructing Hall of Records, and erecting Nurses' Home.....	A. L. Hubbard, Chairman Board of Supervisors.
New York.....	Fort Hamilton.....	October 2, 10 A.M.....	Constructing barracks and officers' quarters.....	Quartermaster.
Georgia.....	Rome.....	October 2.....	Fire-proof jail, two stories.....	J. B. Cantrell, Ch'm. Com'rs.
Louisiana.....	Algiers.....	October 3, 10 P.M.....	Building school house.....	McDonogh, School Commissioner, New Orleans.
Ohio.....	Lakewood.....	October 5, noon.....	New school building.....	J. O. Gordon, Clerk Bd. of Education.
Arkansas.....	Thornton.....	October 6.....	Two-story brick school-house.....	G. I. Wise, Pres. Sch. Dist.
District of Columbia.....	Washington.....	October 11.....	Constructing and equipping Walter Reed Army General Hospital.....	Capt. A. W. Butt, Quartermaster.
Louisiana.....	Schriever.....	October 15.....	Repairs to Court House.....	Chas. V. Moore, Chairman Com.
Colorado.....	Grand Junction.....	October 16, 2 P.M.....	Five brick buildings.....	Chas. E. Burton, Superintendent.
Pennsylvania.....	Dravosburg.....	October 20.....	Three-story school, to cost \$40,000.....	Charles E. Long, President.
District of Columbia.....	Washington.....	October 23, 2 P.M.....	Fire-proof, marble-faced mess hall and dormitory building.....	Capt. J. S. Sewell, Soldiers' Home.
Kentucky.....	Louisville.....	November 4.....	One-story, \$25,000 brick and stone library.....	R. M. Brown, Sec'y Libr. Trustees.
Louisiana.....	New Orleans.....	November 5, 1 P.M.....	Central library building.....	F. White, City Comptroller.

## Miscellaneous

Ohio.....	Akron.....	September 27.....	Erect and equip power, heat and light plant.	Maj. Harry Taylor, Engineer.
Connecticut.....	New London.....	September 27.....	Rock removal in harbor.....	Elliott Woods, Supt. Capitol.
District of Columbia.....	Washington.....	September 29, noon.....	Roughing in plumbing material for Office Building, U. S. Senate.....	Bernard R. Green, Supt. Constr.
District of Columbia.....	Washington.....	September 29, 2 P.M.....	Excavations, concrete foundations and pier work, National Museum Building.....	Board County Commissioners.
Minnesota.....	Little Falls.....	October 1.....	Constructing four ditches, 3 to 5 miles long, each; cost, \$18,000.....	P. J. Lyons, Mayor.
Alabama.....	Mobile.....	October 1.....	Municipal electric light plant, 450 kw., divided into three units 600 arc lamps, power line, stations, etc.....	W. J. McCune, Sec'y Joint Org.
Louisiana.....	Donaldsonville.....	October 1, noon.....	Constructing lock at Bayou Lafourche.....	Capt. Geo. L. Goodale, Q'master.
Massachusetts.....	Boston.....	October 1, 10 A.M.....	Electric wiring, plumbing and repairs, buildings Ft. Warren.....	Isthmian Canal Commission.
District of Columbia.....	Washington.....	October 2, 10:30 A.M.....	Fire alarm telegraph system, motor generator set, Portland cement, drill presses, iron and lead pipe, etc.....	Oscar E. Mauro, Mayor Pro Tem.
Florida.....	Pensacola.....	October 2, noon.....	Police and Fire Department Uniforms.....	Board of Public Works.
Tennessee.....	Memphis.....	October 4.....	5,000 ft. rubber cotton hose; 1,000 ft. double-ply hose, 2½ inches in diameter.....	George H. Horton, City Clerk.
Louisiana.....	Crowley.....	October 5.....	Electric light plant.....	S. H. Allen, Clerk, Bd. Pub. Affairs.
Ohio.....	Oxford.....	October 5, noon.....	Two horizontal tubular steam boilers.....	H. T. B. Harris, P. M. G., U. S. N. Navy Pay Office.
District of Columbia.....	Washington.....	October 9, 10 A.M.....	Machine tools, inc. crane, drills, lathes, etc.	Capt. B. B. Buck, Constr. Q. M.
Virginia.....	Norfolk.....	October 9, 10 A.M.....	Machine tools at Navy Yard.....	O. E. Newman, Chairman.
Georgia.....	Ft. McPherson.....	October 10, 10 A.M.....	Installing 6 steam boilers and hot-water heating in twelve sets officers' quarters.....	
Virginia.....	Manassas.....	October 10.....	Electric light plant.....	

**The Municipal Journal and Engineer** wishes to obtain, at the earliest possible moment, advance and reliable information respecting all work projected. Any items sent us will be greatly appreciated. On request, copies containing such information will be mailed to you.

#### Address—

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News than any other paper**

All items arranged alphabetically  
by States.

#### STREET IMPROVEMENTS

**Madisonville, Ky.**—Center street will be paved with macadam and cement curbs and gutters constructed.

**Paducah, Ky.**—Plans are being prepared for grading and graveling Boyd, Trimble, Nineteenth, Twenty-second and Twenty-third streets and Guthrie avenue; bids are invited.—Address City Engineer.

**Pikeville, Ky.**—Bonds, \$20,000, have been voted for street improvements.

**Annapolis, Md.**—Bonds, \$25,000, for street improvements, are offered for sale.—Address the Mayor.

**Kalamazoo, Mich.**—Council has decided to extend the North street paving from West street to Douglass avenue; Metropolitan brick with pioneer filler being used; work will be done in the spring and will cost \$22,580.

**Geneseo, N. Y.**—Bids will be received, October 5, 2 p.m., for \$12,500 4½ per cent. bonds for improving highways.—Foster W. Walker, Treasurer, Livingston County.

**Cincinnati, O.**—Bids will be received for paving Glenway avenue; estimate, \$15,000.—Edwin Henderson, City Clerk.

**Columbus, O.**—Council has authorized an issue of bonds for paving and street improvements.

**Lisbon, O.**—South Market street will be paved with brick and curbing laid.—Lodge Riddle, City Clerk.

**Massillon, O.**—Bonds, \$8,000, will be issued for laying flagging.

**Massillon, O.**—Approximately \$30,000 worth of sidewalks have been ordered for this season and next spring.

**Mt. Vernon, O.**—Burgess street will be paved with vitrified brick, sheet asphalt or block asphalt and curbing laid.—J. H. Wootton, City Clerk.

**Painesville, O.**—Plans will soon be ready for paving to be done around the park.

**Toledo, O.**—Lincoln avenue and Sherman street will be improved by having the central 26 feet paved with sheet asphalt, bitulithic pavement or other material; Central avenue will be paved.—Oren Dunham, City Clerk.

**Toledo, O.**—Council is considering paving of Summit avenue for a mile and a half north of Riverside Park; estimated cost, \$55,000.

**Youngstown, O.**—The McGuffey street viaduct will be repaved with concrete or asphalt instead of wood; estimate, \$16,000.—John C. Hanni, President, Board of County Commissioners.

**Youngstown, O.**—Council has passed ordinances levying special assessments for paving West Federal street, \$57,000, and Pennsylvania avenue, \$5,200; also for sidewalks on Poland avenue and Henry street.

**Freedom, Pa.**—Bids will be received, October 1, for \$4,000 4½ per cent. bonds, for grading and paving portions of Fourth avenue and Sixth street.—Geo. J. Mohr, Secretary, Town Council.

**Washington, Pa.**—Marshall street will be paved with brick; estimate, \$2,500; bids are invited.

**Seattle, Wash.**—Council has ordered work on the Third avenue north sewer, West Forty-third street water mains, Twenty-seventh avenue sewer, sidewalk of Rainier avenue, and postponed the Boren avenue water mains until October 15.

**Seattle, Wash.**—Resolution of intention to improve Sixteenth, Seventeenth and Eighteenth avenues from Yesler way to Columbia street, Nineteenth avenue from Yesler way to East Madison street, East Columbia, East Jefferson, East Spruce, East Fir, East Alder, East Cherry and East Columbia street from Sixteenth to Twentieth avenues, and East Spring, East Pike, East Union and East Pine from Eighteenth to Twentieth avenues, by paving, has passed the City Council.

**Jefferson, Wis.**—An election will be held, September 27, to vote on issue of \$5,500 paving bonds.

#### CONTRACTS AWARDED

**Hartford, Conn.**—On recommendation of State Highway Commissioner James H. Macdonald, paving contracts have been awarded by the Board of Contract and Supply as follows: Albany avenue, 1,571 feet, at \$2.90 per foot, \$4,555.90, Hartford, and Franklin avenue, 1,340 feet, at \$2.90 per foot, \$3,886. A. C. Sternberg & Son, West Hartford, Maple avenue, 1,546 feet, at \$3 per foot, \$4,638. F. T. Ley & Co., Springfield, Mass. The contract for laying cobble gutters on Maple avenue, at 45 cents per yard, was also awarded to F. T. Ley & Co.

**Washington, D. C.**—The Rudolph S. Blome Company, Chicago, Ill., has been awarded contract to lay concrete pavement on approaches to the Highway bridge, for \$45,000.—Lieut. E. J. Dent, Engineer, Officer in Charge.

**Indianapolis, Ind.**—The Union Asphalt Construction Company has the contract for paving Twentieth street with wooden block.

**Detroit, Mich.**—The Barber Asphalt Company will repave Warren avenue for \$7,800; F. Porath & Son will pave a section of road for \$4,700; W. W. Hatch & Son are low bidders on paving Larned street at \$3,000.

**Dunkirk, N. Y.**—Mayer Brothers, Erie, Pa., has been awarded contract for paving Fifth street with asphalt on a 4-inch concrete foundation, at \$26,701; R. C. Ruthven, of Buffalo, Jamestown shale paving blocks on Railroad avenue, \$13,845, and on Wright street, for \$5,362.

**Rochester, N. Y.**—Whitman, Rauber & Vicinus have been awarded contract for planting and paving one span of the Platt street bridge with creosote wood blocks, at \$5.25 a square yard.

#### SEWERAGE

**Oakland, Cal.**—Bonds, \$588,500, have been voted to reconstruct and extend the sewer system.—Frank K. Mott, Mayor.

**Wilmington, Del.**—Council will be asked to appropriate \$55,000 for a new sewer to prevent pollution of the Brandywine; sewers will also be built in Twenty-third and Walnut streets.—President Johnson, Street and Sewer Department.

**Washington, D. C.**—The Commissioners have authorized bids for constructing a sewer in the Falls Branch valley, for which Congress appropriated \$41,000; it will be 15,400 feet in length and vary in diameter from one to two feet.—D. E. McComb, Superintendent of Sewers.

**Carrollton, Ga.**—Bonds, \$15,000, have been voted for sewers.

**Cairo, Ill.**—Council is preparing to extend the sewer system.

**Woodstock, Ill.**—Council is considering the establishment of a sewer system; plans have not yet been prepared.

**Paducah, Ky.**—Thomas Bridges' Sons, Washington, Ind., will construct the sanitary sewerage system extension known as District No. 2, for \$119,750.24. The other bidders were: Marion County Construction Company, Indianapolis, Ind., \$123,824; M. J. Beach, Toledo, Ohio, \$130,021.88; Talbott-Uhl Construction Company, Logansport, Ind., \$131,150.07.—City Engineer, Washington.

**Norfolk, Neb.**—Arrangements are being made to establish a \$19,000 sewerage system.

**Geneva, N. Y.**—Estimates are being prepared for constructing a sewer in Washington street, which will soon be paved, at a cost of \$26,000.

**Seneca Falls, N. Y.**—Bids will be received, October 8, 7 p.m., for \$68,000 bonds, for constructing sewerage system.—Edward L. Guion, Village Clerk.

**Alliance, O.**—J. C. Devine has the contract for building six sanitary sewers and Perry & Cusick for three.

**Alliance, O.**—An estimate is being made of the cost of extending sewer from the disposal works to a point below the waterworks pumping station.—City Engineer Fouts.

**Canton, O.**—Bids will be opened, October 8, noon, for \$14,500 street improvement and \$7,400 5 per cent. sewer bonds.—Address City Auditor.

**Conneaut, O.**—Bonds, \$10,500, will be issued for sewer purposes.—H. T. Culp, City Clerk.

**East Liverpool, O.**—Plans are being prepared for building a storm sewer in Crawford avenue and an estimate for sewer in Commerce street.—Address City Engineer.

**Lorain, O.**—A submain sewer will be constructed from Charles to Branch street; bids are invited; a contract will also be entered into with Charles Doll for constructing a lateral sewer in Doll's proposed allotment.

**Oxford, O.**—A sanitary engineer will be engaged with a view to constructing a complete sewerage system; bonds will probably be issued.

**Painesville, O.**—Council has authorized the expenditure of \$4,500 for a storm sewer in South St. Clair street, in anticipation of paving; an outlet sewer, to cost \$4,500, will be built.—Address Board of Public Service.

**Steubenville, O.**—Castner Brothers have the contract for a number of sewers and Harry Irons for furnishing the material.

**St. Marys, O.**—Bids for constructing complete sewer system have been rejected and the contract will be readvertised; the lowest bid was \$83,000.

**Youngstown, O.**—Ordinances have passed to levy special assessments for laying sewers in Oak, Watt, Mercer, Rose and Cherry streets and Rayen and Oakland avenues.

**Youngstown, O.**—A 42-inch sewer is to be constructed in North Phelps street.

**Weatherford, Tex.**—The contract for constructing a \$20,000 sewerage system has been awarded to Hamilton Brothers, of Fort Worth.

#### WATER SUPPLY

**Mountain View, Cal.**—The citizens have voted \$10,000 5 per cent. bonds to repair the water system.

**Adairsville, Ga.**—The citizens voted recently to issue bonds for constructing waterworks.—J. B. McCrary & Co., Atlanta, Engineers; J. Bowdoin, Mayor.

**Toccoa, Ga.**—Bonds, \$35,000, will be sold September 29, for waterworks.—John W. Owen, Mayor.

**Greenfield, Ia.**—Bonds, \$10,000, have been voted for waterworks.

**Spencer, Ia.**—The Des Moines Bridge and Iron Company has been awarded contract for 70,000-gallon steel tank on 100-foot steel tower, for \$4,800.—R. L. Taylor, City Clerk.

**Chisholm, Minn.**—The Pittsburgh Filter Manufacturing Company, Pittsburgh, Pa., has been awarded contract for constructing filter plant, at \$14,850.—W. G. Shaw, City Recorder.

**Springville, N. Y.**—Bids will be received, October 6, 8 p.m., for \$12,000 water extension bonds.—I. W. Smith, Village Clerk.

**Bismarck, N. D.**—The Water Board is arranging to build a new reservoir.

**Massillon, O.**—Council has authorized an election to vote \$285,000 bonds, to purchase the plant of the National Water Supply Company.

**Roseburg, Ore.**—Council is preparing to improve the water system.

**Allegheny, Pa.**—Plans are being made for the immediate improvement of the water supply.—John Schamb, Jr., Director, Board of Public Works.

**Reading, Pa.**—A filter plant, to cost \$150,000, is to be built at the Bernhart reservoir; the construction of an additional pipe line is also recommended.—Address Water Board.

**Warrenton, Va.**—Bids will be received, October 1, noon, for \$25,000 new reservoir bonds.—George Latham Fletcher, Recorder.

**Spooner, Wis.**—Bids will be received, October 1, noon, for \$3,500 waterworks bonds.—Frank Hammill, President, Village Board.

#### LIGHTING AND ELECTRICITY

**Montgomery, Ala.**—The West-Stengall Grain and Commission Company proposes to purchase electrical equipment.

**Washburn, Ill.**—A franchise to build, operate and maintain an electric-light plant has been granted A. M. Sears, of Chicago.

**Manteno, Ill.**—The Southern Pacific Traction Company has purchased a lot in the Peters addition and will erect a \$50,000 relay power station.

**Frankfort, Ind.**—The Frankfort Heating Company, recently incorporated, capital \$100,000, will erect and equip a large heating plant.—John D. Ross, H. C. Sheridan and C. W. Neal, Directors.

**Carrollton, Ky.**—Council has purchased the electric-light plant from James F. Jett, for \$7,500; the plant will be enlarged.

**Natchitoches, La.**—Arrangements are being made to improve the electric-light plant and waterworks.

**Beverly, Mass.**—The Beverly Gas and Electric Company has been authorized by the Board of Gas and Electric Light Commissioners to issue \$200,000 bonds for additions to its plant.—John Foley, Chief Engineer.

**Galion, O.**—Bonds, \$8,500, will be issued for improving the electric-light plant.—John Shea, City Clerk.

**Gaffney, S. C.**—The Electric Manufacturing and Power Company, of Spartanburg, will develop the water power of Broad river and supply Gaffney, Spartanburg and other towns.

**Oconto, Wis.**—The Oconto Electric Company will install a new plant.

**Superior, Wis.**—Council is considering purchase of the water and power plant of the Superior Water, Light and Power Company.

**FIRE EQUIPMENT AND SUPPLIES**

**Los Angeles, Cal.**—The citizens have voted bonds for an engine house at Mohawk street and Sunset boulevard.

**Chicago, Ill.**—The Fire Commissioners have decided to have plans prepared for a boat; estimated cost, \$100,000.

**Elgin, Ill.**—The directors of the Elgin asylum have decided to expend \$17,000 for fire protection; work includes station, pipe steam pump and pipe hydrants for a complete water system.

**Rockford, Ill.**—The purchase of an additional fire engine and truck for engine house No. 2, and a ladder wagon is recommended by the Council, Police and Fire Committee.

**Sherburne Falls, Mass.**—It has been voted to buy a new fire pump for \$1,000; a committee is considering the matter of a gravity water system.

**Adrian, Mich.**—Council has decided to build a hose tower.—William Payne, Chairman.

**Mankato, Minn.**—The Fire Chief recommends the purchase of a hook and ladder truck and 1,000 feet of hose.

**Kansas City, Mo.**—Council is considering issue of \$225,000 bonds for the Fire Department.

**Anaconda, Mont.**—Citizens in the Centerville suburb have organized a fire company and propose to purchase apparatus.

**Beatrice, Neb.**—A volunteer fire company has been organized with forty members; apparatus will be procured.

**Bloomington, Neb.**—Council has voted bonds for an engine house and City Hall.

**Atlantic City, N. J.**—The city offers at private sale \$128,000 4 per cent., 20-year Fire Department bonds, in lots and date of delivery to suit purchasers.—Address City Comptroller.

**Willow City, N. D.**—Council has decided to build a combined Fire Hall and City Hall.

**Philadelphia, Pa.**—Council has decided to build a fire station at Main and Bringhurst streets, Germantown.

**PUBLIC BUILDINGS**

**Tamms, Ill.**—Bonds, \$1,200, have been voted for school purposes.

**McAlester, I. T.**—Bids will be received, October 1, for \$175,000 school and \$25,000 water and sewer bonds.—J. M. Gannaway, City Clerk.

**Okomah, I. T.**—The School Board has awarded the contract for erecting a new school building to DeFlorin & Altman, of South McAlester, at \$11,625.

**Talihina, I. T.**—Bonds, \$5,000, have been voted for school purposes.

**Osborne, Kan.**—The citizens will vote on issue of bonds to erect a Court House.

**Stockton, Kan.**—Bids will be received, October 5, for \$13,800 5 per cent. bonds of School District No. 6.—Charles Rilesey, Clerk.

**Maysville, Ky.**—The citizens will vote on issue of bonds for erecting school houses.

**Winchester, Ky.**—The issue of \$50,000 bonds for schools will be voted on in November.

**Ann Arbor, Mich.**—The citizens have voted \$30,000 bonds for erecting a City Hall.—Ross Granger, City Clerk.

**Moose Lake, Minn.**—An issue of \$20,000 school district bonds has been authorized.

**Collins, Miss.**—The plans of W. S. Stubbs, of Jackson, for a \$45,000 Court House, has been accepted.—County Board of Supervisors.

**Greenfield, Mass.**—A new Franklin County Hospital, costing \$23,000, is to be built; also an administration building, costing \$11,000, and a nurses' home, costing \$6,000.

**Winona, Miss.**—Bids will be received, October 10, for \$10,000 5 per cent., 20-year school bonds.—E. G. Whitehead, Town Treasurer.

**Kansas City, Mo.**—Council is considering issue of \$200,000 bonds for hospital purposes.

**York, Pa.**—Judges Bittenger and Wanner have approved plans of Architect B. F. Wilkins to convert old county jail into a modern five-story structure, at a cost of \$150,000.

**Sumter, S. C.**—Bonds, \$30,000, will be sold, October 2, for a County Court House.—W. H. Reale, Supervisor.

**Vermillion, S. D.**—The citizens will vote on issue of \$60,000 Clay County Court House bonds at the November election.

**Guthrie, Tex.**—The Attorney-General has approved an issue of \$7,000 jail bonds.

**Hillsboro, Tex.**—The citizens have voted \$20,000 bonds for erecting a high school building. Address the Mayor.

**Norfolk, Va.**—Phil E. Donnavant & Co have been awarded contract to construct the Missouri State Building at the Jamestown Exposition, to cost \$20,000.—Guy Mariner, St. Louis, Architect.

**Keyser, W. Va.**—The citizens of Mineral county have voted \$50,000 bonds for erecting a new Court House.

**Cheyenne, Wyo.**—The War Department has authorized plans and specifications and the advertising for bids for 36 new buildings, to cost \$700,000.—Capt. V. T. Hart, Constructing Quartermaster, Fort D. A. Russell.

**STREET RAILWAYS**

**Nampa, Ida.**—The Boise Valley Electric Company has petitioned for franchise to construct an electric railway through the city.—Edgar Wilson, Attorney.

**Terre Haute, Ind.**—The Southern Indiana and Terre Haute Traction company will extend its interurban line from Sullivan to Linton.

**Argenta, Kan.**—A fifty-year franchise for an electric street railway has been granted the Argenta Railway Company.—J. M. Griffin, President; John G. Vogel, Vice-President; J. P. Fauchette, Secretary and Treasurer.

**Albany, N. Y.**—The Paul Smith Electric Light, Power and Railroad Company has been authorized to build an electric line nine miles through the Adirondacks from Lake Clear station, Harrietstown, to Paul Smith's, at Saranac.

**Knoxville, Tenn.**—The Knoxville Railway and Light Company proposes to build lines to Vestal and Lion View; other improvements are also to be made.

**El Paso, Tex.**—A franchise has been granted Frank Toben to build an electric line fifteen miles long.

**Mineral Wells, Tex.**—The Mineral Wells Electric Light, Power and Street Railway Company is preparing to build 8½ miles of electric road.

**Bristol, Va.**—The Bristol Belt Line Company will extend its car lines over the various streets.

**Menomonie, Wis.**—The Chippewa Valley Electric Company, which operates a traction line between Chippewa Falls and Eau Claire, has petitioned for a franchise for traction, light, power and heating.

**BRIDGES**

**Ventura, Cal.**—The County Board is considering the construction of a \$150,000 bridge at Salisbury.

**Mt. Vernon, Ind.**—The Posey County Commissioners will build a number of bridges; concrete is favored.

**Richmond, Ind.**—The building of a bridge across the Whitewaka river is being considered.—Wayne County Commissioners.

**South Bend, Ind.**—Bids will be received, October 20, at 2 p.m., for \$160,000 bonds, to be issued for paying for bridges and for the County Asylum building, now being erected.—John W. Harbo, Auditor, St. Joseph County.

**Waterloo, Ind.**—Twenty new bridges and an appropriation of \$13,000 were asked for by the Commissioners, but Council decided to provide for only six bridges, charging the others to the county.

**Lynn, Mass.**—George E. Smith, of Everett, and other members of Harbor and Land Commissioners, will pass on location of pedestrian bridge over Little river.—Acting Mayor Tapper.

**Salem, Mass.**—Bids will be advertised soon for completing the Waters river bridge at Danvers, about which there was a Legislative investigation.—Address Essex County Commissioners.

**Grand Rapids, Mich.**—Plans for the work on the Ann street bridge are nearing completion, and bids are invited; the contract for the piers and abutments has been awarded to the Grand Rapids Bridge Company, at \$20,000.—City Engineer Anderson.

**Meadville, Miss.**—Bonds, \$60,000, will be issued to construct five bridges in Franklin County.—Address Board of Supervisors.

**Helena, Mont.**—The County Commissioners have been petitioned to build a 1,500-foot bridge across Prickly Bear creek, at a cost of \$15,000.

**Trenton, N. J.**—Plans are being prepared for two new steel and concrete bridges.—Frank J. Epple, County Engineer.

**Hamilton, O.**—The construction of a viaduct across Two Mile creek at North B street, or the Seven Mile pike, is being considered by the County Commissioners and the Cincinnati Northern Traction Company.

**MISCELLANEOUS**

**Boston, Mass.**—The Eastern Dredging Company has been awarded contract for dredging in Winthrop harbor, at 22 7-10 cents per cubic yard, and J. P. O'Riordan, of Charleton, contract for dredging in Ipswich river, at 28 9-10 cents per cubic yard.—Harbor and Land Commission.

**Standish, Mich.**—Council has voted to put in a new cement and stone washaway to the dam on Main street, also a new bridge.

**Kansas City, Mo.**—A contract for installing two passenger elevators in the City Hall has been awarded to the Otis Elevator Company for \$9,675.

**Elmira, N. Y.**—Council has sold \$39,000 40-year serial bonds to S. A. Kean, Chicago, Ill., at 100 1-2 per cent.

**Cleveland, O.**—About \$16,000,000 is to be expended on the canal between Geneva and Pittsburg, Pa.; actual work will probably begin next spring at Indian Creek.—Address B. T. Quilling, Williamson Building.

**Cleveland, O.**—The citizens will vote, October 9, on issue of \$3,500,000 local improvement bonds, divided as follows: City Hall, \$750,000; park and boulevard, \$750,000; central viaduct, \$700,000, and Superior viaduct, \$1,300,000.—Tom L. Johnson, Mayor.

**Lorain, O.**—Bonds, \$30,000, may be issued for the purchase of City Hall property, and \$150,000 for school purposes.

**Toledo, O.**—The first concrete ice-breaker to be built by the city will protect the Fassett street bridge.—Board of Public Service.

**Philadelphia, Pa.**—The Edward F. Fonder Company has been awarded contract for constructing 475 feet of the wall adjoining the drydock at League Island Navy Yard.

**Beaumont, Tex.**—An election will be held to vote on issue of \$50,000 bonds for improvements.

**Houston, Tex.**—The Houston Belt and Terminal Company has decided to issue \$5,000,000 bonds for improvements.—L. W. Murdock, Secretary.

**Racine, Wis.**—Engineers are making surveys and getting ready to install underground system of telephone service between Racine and Kenosha; it will be owned by the Wisconsin Telephone Company.

**FOUNDATION OF ROADS** is the subject now under most earnest investigation by Engineers throughout the world; poor foundations and good surfaces are found everywhere—result, short lived roads.  
THERE IS NOT ONE FOUNDATION ON THE MARKET TO-DAY THAT PROPERLY SUPPORTS THE SURFACE. The steel rail and the wooden cross tie is always the same, but the highway is a different thing; different in faces and different foundations are required for different services. We have these different foundations; they DO properly support the surface, and, IN OTHER WAYS, they give a life to the surface that was never before even contemplated.  
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## CONVENTION NOTES

**League of American Municipalities.**—The tenth annual convention will be held in Chicago, Ill., from September 26 to 28, in the Assembly Room of the Auditorium Hotel. The program is as follows:

September 26, 10 a. m. Address of welcome by Mayor Edward F. Dunne. Response and address of President R. G. Rhett. Report of Secretary John MacVicar. Report of Treasurer W. D. Morgan. Report of Committee on Uniform Municipal Reports. Hugo Grosser, chairman. Papers on "The Influence of Taxation on the Prosperity of Cities," by Lawson Purdy; "The Influence of Sanitation on Mortality," by Chas. J. Whalen; "The Young Man in Municipal Politics," by Sherburn M. Becker.

Thursday, September 27, 9:30 a. m. Papers on "Franchise Conditions in the City of New York," by Harry P. Nichols; "The Municipalization of Street Railways in Toronto," by E. Coatsworth; "Baltimore's Great Sewerage Problem," by Calvin W. Hendrick; "Prime Requisites of Successful Municipal Administration," by Andrew Rosewater; "Advance in Sewage Purification," by Alexander Potter; "The Value to Municipalities of Woman Suffrage," by Miss Jane Addams.

Friday, September 28, 9:30 a. m. Papers on "Municipal Ownership," by Prof. Frank Parsons in favor, and by Prof. Frank H. H. Roberts in opposition. Election of officers. Selection of next place of meeting. The city will entertain delegates by an automobile ride and banquet on Wednesday; on Thursday a visit will be made to the tunnels of the Illinois Tunnel Company, and on Friday to the stockyards.

**The American Civic Association.**—The annual convention will be held at Milwaukee, Wis., October 24 to 26. Papers will be read upon the "Niagara Campaign," by President J. Horace McFarland; on "Our National Capital," by Henry B. F. Macfarland; "The Appalachian Reservations"; "Wisconsin's Contributions to Civic Progress"; "San Francisco's Opportunity and How She Is Using It"; "What Women Are Doing for Civic Improvement"; "The Civic Opportunity in the South"; "A Western View of the Problem"; "What One Man Did"; "What One Association Did"; "Mosquito Extermination." Reports will be received from the Departments of Women's Outdoor League, Arts and Crafts, Children's Gardens, City Making, Libraries, Outdoor Art, Public Recreation, Press, Public Nuisances, Parks and Public Reservations, Railroad Improvement, Rural Improvement, School Extension, and Social Settlements.

**The Mayors' Association of Texas.**—This convention will meet in Fort Worth, September 20-21. The Aldermen and the City Engineers of the Various towns and cities of Texas will be invited to participate in the meeting. The programme follows:—

Sept. 20, 10 a. m.—Address of welcome, Mayor W. D. Harris; response to welcome, Mayor Curtis P. Smith, Dallas, and Mayor F. C. Highsmith, Mineral Wells; annual address of president; report of officers; luncheon at Panther Club, 2 p. m.—"Sewage and Sewage Disposal," John W. Maxcy, civil engineer, Dallas; general discussion; "How Shall City Paupers Be Managed?" Mayor W. D. Harris, Fort Worth; general discussion. 8 p. m.—"Why Should Not Cities Over 5,000 Have a Special Charter?" Mayors of Mineral Wells, Abilene, Amarillo and McKinney and Attorney General Davidson; general subjects; election of officers; selection of place of meeting. 8 p. m.—Local entertainment to be announced later.

**The 27th Annual Convention of The Massachusetts State Firemen's Association** was held at Worcester, September 12 to 14. More than six hundred delegates were present. Among the papers presented were "Fire Protection for Underground Structures," by Wm. T. Beggin; "A General Synopsis of Bills Affecting Firemen, Introduced into the Late Massachusetts Legislature"; "The Massachusetts Standard Fire Insurance Policy"; "Conflagrations from an Underwriter's Point of View"; and "New System of Standpipe Protection." The Association membership numbers 2,819. The Treasurer's report showed the Association to be in a very prosperous condition.

## INCORPORATIONS

**Bennis Construction Co.**, Philadelphia; to engage in a general contracting and construction business; capital, \$100,000.

**Centerville Concrete Co.**, Centerville, N. Y., to manufacture concrete cement blocks; capital, \$5,000. Incorporators: Neal B. Hill, Francis R. Hill, Abraham Sniffen, Centerville Station, N. Y., and others.

**Cherry Valley Gas Co.**, Cherry Valley, N. Y., to manufacture and supply gas, etc.; capital, \$10,000. Incorporators: Abraham B. Cox, Lucy A. Thompson, Alva S. Pearson, Cherry Valley, N. Y.

**Composite Pile Construction Co.**, New York City, general contractors; capital, \$500,000. Incorporators: Paul A. Schuchart, Clarendon Road; G. G. Brown, Gravesend, both of Brooklyn; Edward H. Blanc, William street, New York.

**Civic Securities Co.**, Portland, Me.; for the purpose of dealing in stocks, bonds and other securities; capital, \$800,000. Incorporators: President, H. L. Cram, of Portland; treasurer, B. L. Steward, of Portland.

**Empire State Crushed Stone Co.**; quarry stone, etc.; capital, \$500,000. Incorporators: Emil Diebitsch, 1 West Eighty-first street, New York; Henry S. Lamphier, Glen Ridge, N. J.; Peter A. Gage, 238 East Sixty-first street, New York; Hamilton J. Chapman, Rutherford, N. J.; Joseph P. Casey, 215 West One Hundred and Forty-second street, New York.

**George H. Griffin Contracting Company**, Kansas City; capital, \$15,000, two-fifths paid. Incorporators: George H. Griffin, J. P. Bachelor, A. A. Austin, John C. Hughes and others.

**Frank G. Fowler Construction Co.**, Mt. Kisco, N. Y., contractors and contracting engineers; capital, \$10,000. Incorporators: Frank G. Fowler, George R. Gorham, J. Louise Fowler, Mt. Kisco, N. Y.

**The Independent Engineering Co.**, New York City, electrical engineering and civil engineers; capital, \$50,000. Incorporators: John Green, Huntington, N. Y.; L. M. Lawson, Jr., Stratford, Conn.; M. C. Addoms, Jr., 73 East Fifty-sixth street, New York.

**International Combustion Corporation**, 15 Exchange Place, Jersey City, N. J.; special concrete and masonry work, contracting; capital, \$500,000. Incorporators: H. O. Coughlan, John R. Turner, Felix Ingold, all as above.

**Lebanon Sewer Co.**, Lebanon, Pa.; \$2,500, one-half paid. Incorporators: O. G. Bantley, Will I. Diffenderfer, John G. Lingsweller, Charles W. Rubey, H. W. Clark and others.

**People's Car and Electric Co.**, Mason City, Iowa; to engage in a general electrical business; capital, \$800,000.

**Portland-Monson slate Co.**, Portland, Me.; for the purpose of quarrying and dealing in slate with \$50,000 capital stock, of which none is paid in. Incorporators: President, John W. Coleman, of Portland; treasurer, Ernest A. Randall, of Portland.

**The Portland Power Co.**, Belvidere, N. J.; build dams, ice houses, power houses, etc.; capital, \$500,000. Incorporators: Henry W. McDonald, Lewis H. Nicholas, Jennie Killian, Jacob V. Carter, Dayton Brugler, all as above.

**Port of Para Co.**, Portland, Me.; for the purpose of building and owning wharves, docks, ships and warehouses, and operating the same; capital, \$17,000,000. Incorporators: President, Millard W. Baldwin, of Portland; treasurer, Warren N. Akers, of Boston, Mass.

**Sterling Brick Co.**, Sterling, N. J.; to manufacture brick, etc.; capital, \$100,000. Incorporators: John S. Yergason, 845 Park Place, Brooklyn; Robert Beattie, Jr., Little Falls, N. J.; Monroe F. Ellis, Bernardsville, N. J.

**Twin States Gas & Electric Co.**, Hartford, Conn.; capital, \$1,750,000; to take over the properties of the Brattleboro, Vt., street railway and gas companies, and those of the Dover, N. H., gas company.

**Tubeless Iron Co.**, Portland, Me. Gas appliances; capital, \$25,000. President, H. W. Russell; treasurer, E. F. Seyler; clerk, C. A. Strout, all of Manchester, N. H.

**The Summitville Drain Tile Co.**, Anderson, Ind.; capital, \$75,000. Incorporators: Thos. G. Berry, of Indianapolis; Arthur Coffin, of Alexandria, and J. F. Morris, of Summitville.

**United Cement Machinery Manufacturing Co.**, Augusta, Me.; making and sale of cement; capital, \$1,000,000. President and treasurer, I. L. Fairbanks; clerk, L. A. Burleigh, Augusta, Me.

**White River Power Co.**, Rhinelander, Wis.; capital, \$200,000. Incorporators: A. W. Skelton, C. A. Wixon and E. A. Forbes.

**Vernon Contracting and Construction Co.**, Mt. Vernon, N. Y.; contracting, etc. Capital, \$10,000. Incorporators: James Garofano, Mariantonio Garofano, J. Henry Esser, Mount Vernon, N. Y.

## Calendar of Meetings of Municipal and Allied Societies

**September 26-27.** **National Association of Comptrollers and Accounting Officers.**—First annual convention. Auditorium Annex, Chicago, Ill.—Howard C. Bede, Secretary, City Hall, Detroit, Mich.

**September 26-28.** **League of American Municipalities.**—Tenth annual convention, Chicago.—John MacVicar, Secretary, Des Moines, Iowa.

**October 1-6.** **Pennsylvania State Firemen's Association.**—Convention, Gettysburg, Pa.

**October 3-5.** **Kansas State Firemen's Association.**—Convention and Tournament, Lawrence.—Walter Puckey, Secretary, Clay Center.

**October 5.** **Brockton Fair Association.**—Hand Engine Muster.

**October 9.** **American Society of Municipal Improvements.**—Annual convention, Birmingham, Ala.—George W. Tillson, Secretary, Municipal Building, Brooklyn, N. Y.

**October 9.** **West Virginia Board of Trade.** Charles-ton.—R. B. Naylor, Secretary, Wheeling.

**October 9-12.** **International Association of Fire Engineers.**—Annual convention, Dallas, Tex.—Jas. McFall, Secretary, Roanoke, Va.

**October 11.** **Veteran Volunteer Firemen's Association.**—Grand parade.—Neil McLeod, Jr., Secretary, 1213 Grand street, Elizabeth.

**October 15-19.** **American Street and Interurban Railway Association.**—Annual convention, Columbus, Ohio.—B. V. Swenson, Secretary, 30 Wall street, New York City.

**October 16-18.** **Southern New York Volunteer Firemen's Association.**—Convention, Flushing, L. I.—J. H. Downing, Secretary, 130 Fleet street, Brooklyn, N. Y.

**October 24-26.** **American Civic Association.**—Annual convention, Milwaukee, Wis.—Clinton Rogers Woodruff, Secretary, 703 North American Building, Philadelphia, Pa.

**October 29.** **New Jersey State Firemen's Mutual Benevolent Association.**—Convention, Atlantic City, N. J.—R. D. Bender, Secretary, 212 Halsey street, Newark, N. J.

**November 13-15.** **Southern Immigration and Quarantine Conference.**—Nashville, Tenn.

**November 13.** **New York State Conference of Charities and Corrections.**—Seventh conference, Rochester, N. Y.—Walter E. Kruesi, Secretary, 105 East Twenty-second street, New York City.

**January.** **American Institute of Social Service.**—Exposition, New York City.—Dr. William H. Tolman, Director, 287 Fourth avenue, New York.

## WHO'S WHO IN MUNICIPAL WORK

**BASSETT, Carroll Phillips.**—Civil and sanitary engineer, born in Brooklyn, N. Y., February 27, 1863. Educated in Lafayette College and in Europe. Chief engineer and treasurer of the Essex-Union Water and Light Company, of New Jersey, the Lakewood Water, Light and Power Company, of New Jersey, and several other allied companies in Essex, Union and Somerset Counties. Director of the First National Bank, of Summit, N. J., and of the Guardian Trust Company, of New York. Trustee of Lafayette College. Author of engineering articles. Designed and constructed numerous sewerage and water-supply plants in Connecticut, New York, New Jersey, and South Carolina. Residence, Summit, N. J.

**BLACK, Fingal Conway.**—Head of Department of Highway Engineering of Rhode Island College of Agriculture and Mechanic Arts, Kingston, R. I. Born at Euharlee, Bartow County, Georgia, September 23, 1868. Academic training received at the South Carolina Military Academy, University of South Carolina, and University of Chicago. Draftsman for Ladshaw and Ladshaw, Civil Engineers, Spartanburg, S. C., 1890 to 1894; instrument man and draftsman for Spartanburg, Clifton and Glendale Railroad, 1895; Chief of Party on survey of power at Noris, S. C., Durhan Shoals, N. C., and Palmer Shoals, N. C., and transit man on disputed boundary line between Spartanburg and Greenville Counties, S. C., 1896; county engineer in charge of the highways and bridges of Spartanburg County, S. C.; commissioner for Spartanburg County, S. C., in the survey of new boundary line between Spartanburg and Cherokee Counties, S. C., and consulting engineer for Anderson, Greenville, Laurens, and Cherokee Counties, S. C., 1897 and 1898; First Lieutenant Third U. S. V. Engineers during the war with Spain, serving in the United States and in Cuba; survey of water power, design for power development, and in charge of the construction of masonry dam, bulkhead and foundation for a 10,000 spindle cotton mill at High Shoals, N. C., 1899; engineer in charge of the surveys of water privilege and designs of masonry dam, bulkhead, and power plant for 20,000 spindle cotton mill at Granite Falls, N. C., and consulting highway bridge engineer for Burke County, N. C., 1900; survey, design and construction of sewer system for Winsmith addition to the City of Spartanburg, S. C., and in charge of the construction of 23,888 yards of vitrified brick and 2,272 yards of granite block paving for the City of Spartanburg, S. C., 1901; engineer in charge of surveys and construction of twelve miles of macadam highway for Gaston County, N. C., 1902; professor of civil engineering at Scio College, Ohio, 1903 to 1905; professor of civil engineering at Indiana College of Applied Science, 1905 and 1906. Residence, Peace Dale, R. I.

**BURGESS, Philip.**—Civil and sanitary engineer, born at Newtonville, Mass., in 1876. Graduated from the Massachusetts Institute of Technology in 1899. Has served as assistant engineer for the Spring Garden Water Works, Philadelphia; the Jersey City Water Supply Co., of Paterson, N. J.; Hering and Fuller, of New York City; the Cincinnati, O.

Water Works. At present investigating for the Ohio State Board of Health the various water purification plants of the State. Residence, Columbus, O.

**INNES, Harry Clifford.**—Asphalt expert and Municipal Engineer; born at Cincinnati, O., in 1865; served as assistant engineer on various railway, bridge, waterworks, mine and other projects and constructions. In 1893 and 1894, prepared plans for waterworks for Hartwell, Arlington Heights and Wyoming, O. From 1894 to 1902, with the Warren Scharf Asphalt Paving Co., the Barber Asphalt Paving Co., and the Federal Asphalt Co. Has made investigations of asphalt deposits. Address Cincinnati, O.

## BOOK REVIEWS

**The Disposal of Municipal Refuse.**—By H. deB. Parsons. John Wiley & Sons, New York. 181 pages. The author states in his preface that "It is not intended that these pages shall be a treatise on the designing of details for the final disposition of city refuse, but rather to state the characteristics of the materials collected, the uses to which they could be put, the quantities that may be expected, and the principles underlying their sanitary and economic handling." The purpose as thus expressed is well carried out, but it will be noticed that disposal is not included in the list, and the title is therefore misleading. There is a chapter on Methods of Disposal, another on Reduction and Incineration, and a third on Practical Incineration; but the first two are apparently a perfunctory presentation of familiar matter, because it was thought some treatment of the subject would be expected. In the chapter on Reduction and Incineration but two pages are occupied by reduction, which, with three pages in the previous chapter given to a description of three reduction processes, are the sole attention paid by this work to this method of disposal. The last chapter, on Practical Incineration, is the really new matter and the apparent *raison d'être* of the book. It presents a statement of the methods employed and results obtained by the author in the plants which he has constructed in New York. In fact, of the 68 illustrations, three are of Washington, D. C., street sweepers, six of foreign incinerators, and the remaining 59 are of New York appliances and plants. In spite, however, of the evidently limited field from which information has been drawn, there is some excellent matter besides that in the last chapter. The chapter on Economics is an admirable presentation of the possible revenues derivable from each kind of refuse; the problem of long and short hauls; the value of refuse as a fuel; and of rubbish alone as a fuel. In connection with the quantity of refuse several recent figures are given which bring these data fairly up to date. Among the statements worthy of notice are the following: "Practically a Health Board had better be free to condemn than be made to stand sponsor" for the method of disposal adopted; the entire matter of selection, construction and maintenance of a plant should therefore be in the hands of others, preferably the engineer. "In America the failures have been chiefly due to incorrect designs of furnaces, large grates, slow combustion, low temperatures, too much reliance on

stoking, and inexperienced firemen. . . . The majority of American plants have not had competent engineering talent in charge. . . . The types of furnaces so far adopted in America have been of cheaper form of construction than those of the latest and best patterns in Europe, and the municipalities have given too much consideration to first cost and too little to efficient working and results to be achieved."

## THE PERIODICALS

Municipal affairs as viewed by current publications:

"Recent Work on the Extension of Riverside Drive," "Engineering Record" for September 15. The extension of this boulevard recently constructed is 1½ miles in length, consisting of a carriage road 58 feet wide, an 18-foot bridle path, and two 15-foot sidewalks, separated by 5-foot strips of parking; the whole about 60 feet above the N. Y. C. & H. R. R. tracks and 70 feet above the Hudson River. "Lowering 500 Feet of 36-inch Water Main," in New York City, while under a pressure of 40 pounds, blasting being required in excavating. "Engineering Record" for September 15. "The Relocation of Public Service Systems During the Grade Raising of Galveston, Tex." "Engineering Record" for September 15. Methods of changing the position, either vertically or horizontally, of water and gas mains and other sub-surface structures. Also observation on the condition in which these were found.

"The Protection of a Large System of Mains," by Walton Forstall, "American Gas Light Journal" for September. Treats of the necessity of continually watching the construction of other underground structures near gas mains to see that the latter are not damaged thereby.

## LEGAL NEWS

**A Summary and Notes of Recent Decisions**  
—**Rulings of Municipal Interest**

### Defective Wiring

**Hayes vs. Chicago Telephone Co.**—A judgment in favor of a municipal corporation in an action against it and a telephone company for injuries caused by a broken wire maintained by the city on the company's poles, as to which the company was not negligent, is held to prevent a recovery against the company.—Circuit Court, Chicago, Ill.

### Funds for Lighting

**Cronchet vs. City of McKinney.**—The suit was for the purpose of restraining the city from using money from the waterworks funds for the purpose of extending the municipal light plant for commercial lighting. Verdict in favor of city.—District Court, McKinney, Tex.

### Sewer—Damages

**City of Huntington vs. Stemel.**—In an action for the maintenance of a nuisance, consisting of a sewer and reservoir, etc., evidence of damage to plaintiff's property by reason of the construction of a sewer across the same, in that the sewer would interfere with building foundations, its effect on walls built over the sewer, the manner in which an adjacent building must be built because of the sewer, etc., was inadmissible. In an action for damages from a nuisance, consisting of the maintenance of a sewer and reservoir near plaintiff's building, the measure of plaintiff's damages is the depreciation in value of plaintiff's property resulting from the nuisance.—Appellate Court, Indiana.

## TRADE NOTES

**AMBULANCE.**—The Fulton & Walker Company, Philadelphia, Pa., issues a folder illustrating its Coach-Ambulance and Patrol Wagon. The ambulance provided with an electric motor is the pattern recommended for use by municipalities.

**FIREPROOF FLOORING.**—The Reinforced Cement Construction Company, 1 Madison avenue, New York City, has developed a system of fireproof floor construction in which part of the cement work is prepared in the shop and part laid in place in the building. The object of the system is to provide a floor in which the bottom flanges of the beams and girders are effectively protected against fire. The wooden centering is simple and, it is claimed, saves labor as well as lumber.

**NEW PUBLICATION.**—The Studebaker Bros. Mfg. Co., South Bend, Ind., issues No. 1, of The Studebaker, a little journal issued in the interests and for the edification of the man who sells Studebaker vehicles, harness and automobiles. The journal has 16 well-printed and illustrated pages, and is a creditable publication.

**NEW WOOD PAVEMENT.**—A. F. Shuman & Co., 88 Washington street, Chicago, is the inventor of a patent system of wood paving which has been placed on the market. The pavement consists of strips of wood cemented with bitumen and bolted together in sections of any size up to 2x10 feet square. The strips may be 2 inches or more in depth. A special form of this pavement, adapted for steep grades, is made by varying the depth of the strips at intervals. The bituminous cement, which is patented, is tempered with a view to prevent flowing in hot weather.

**STREET SWEEPERS.**—P. F. Campbell, 51-57 Laurel street, Philadelphia, Pa., announces in a booklet that he has recently bought out the Brooklyn Railway Supply Company and that he is manufacturing the Brooklyn street sweeper, remodeled, strengthened and improved. The main frame is made of steel, riveted, not bolted. The running gear consists of two 30-inch front wheels and two rear 60-inch wheels, both standard pattern Sarven wheels. The main axle is cold rolled 2 15-16 inches diameter, fitted with steel driving gear engaging a pinion on a countershaft from which the broom is driven by a sprocket and chain. The machine weighs 2,000 pounds and sweeps a swath of about seven feet.

**THAWING APPARATUS.**—George T. Liddle, Muskegon, Mich., has invented a system of thawing frozen fire hydrants or water pipes. A small pipe—half inch or inch—is laid parallel with the hydrant connection pipe. When occasion requires, steam from a small portable boiler or other convenient source is turned into the protecting pipe and the ice in the hydrant connection rapidly melted.

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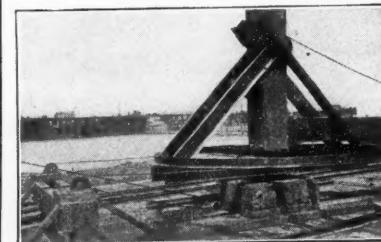
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**Note.**—The city of New Rochelle, N. Y., has subscribed for twelve yearly subscriptions to the MUNICIPAL JOURNAL AND ENGINEER, New York City.

## PATENT CLAIMS

830,027.—**Garbage-Crematory.** William M. Venable, New York, N. Y. Filed Oct. 14, 1905. Serial No. 282,706.

In a crematory an elongated combustion chamber divided horizontally into an upper portion and a lower portion by a garbage-receiving platform, the entire floor of the combustion chamber being formed by a number of sections of updraft grates separated from one another by partition walls extending to the bottom of each ash-pit beneath, in combination with means for controlling at will the admission of air to each ash-pit.

830,046.—**Electric Sprinkling-Car.** Samuel T. Bole, Philadelphia, Pa., assignor to John A. Brill, Philadelphia, Pa. Serial No. 260,918.

In a device of the class described, a combination of a tank and induction-pipe leading downwardly therefrom, a spring relief-valve in said pipe, and manually-operated means in said valve for opening the same against the action of said spring, a pump connecting with said pipe and also with a nozzle-pipe.

830,150.—**Centering Construction.** Abraham L. A. Himmelwright, New York, N. Y., assignor to The New Jersey Wire Cloth Company, Trenton, N. J., a Corporation of New Jersey. Serial No. 264,415.

The combination with metal bars forming a part of a permanent framework, of a centering formed by boards extending transversely to the bars and secured directly to said bars by ties adapted to be cut to release the centering-boards for their removal.

830,483.—**System of Reinforcement for Concrete and Similar Structures.** Daniel B. Luten, Indianapolis, Ind. Serial No. 245,366.

A concrete structural member reinforced with main members of mild or soft steel or iron and secondary members of roughened hard steel.

830,490.—**Street-Cleaning Machine.** Horace Borden, New Bedford, Mass. Serial No. 310,424.

A street-cleaning machine, having a series of scraping-blades, each blade having an independent vertical movement; and means to simultaneously raise said blades over an accumulation in front of them, substantially as described.

830,552.—**Water Softening and Clarifying Apparatus.** John L. Zeigler, Los Angeles, Cal., assignor of one-third to Joseph Reed and one-third to F. G. Calkins, Los Angeles, Cal. Serial No. 303,587.

A water-softening apparatus comprising a tank, a casing above said tank and communicating therewith, said casing having a water-inlet, a drum mounted to revolve in said casing and provided with buckets in the path of the water from the inlet, a reagent-supply connection to said drum, valves on said drum controlling the passage of the reagent-supply from the drum into the casing and tank, and operating means in the path of movement of the valves to operate the valves in the movement of the drum.

## Proposals

### Bridge Construction

#### NOTICE TO BUILDERS.

La Porte, Ind.

Sealed proposals, endorsed "Bids for Franklin Street Bascule Bridge," and addressed to the Board of County Commissioners of La Porte County, Indiana, will be received up to 11 o'clock a. m., 4th of October, 1906, for the furnishing of all labor and all appliances and appurtenances required to perform all necessary operations for the complete construction and erection ready for use, the substructure, superstructure and machinery of a bascule bridge over the harbor at Franklin Street, in Michigan City, Indiana, as per plans and specifications on file in the Auditor's Office, at La Porte, Indiana. Proposals must be made on blank forms furnished by the County Auditor.

Said contract will be let to the lowest and best bidder. The party receiving the contract shall give bond in double the amount of his bid with surety to be approved by the County Commissioners of La Porte County, Indiana, providing for the compliance with contract and payment of all labor and material furnished.

A certified check for \$1,000.00, made payable to the County Treasurer, must accompany the bid as a guarantee that the bidder, if successful, will enter into a contract according to the terms of the proposal. The right is hereby reserved to reject any and all bids.

CHAS. H. MILLER,  
Auditor of La Porte County.

### Steel Highway Bridge

#### Culiacan, Sinaloa, Mexico.

The Governor of the State of Sinaloa, Mexico, is asking for bids on the steel work for seven spans of 32,308 meters each, of a bridge for highway traffic of 9.28 meters in width and 136 meters in length. The bridge must be of good materials, and may be of truss, arch or girder types, designed to carry a live load of not less than 100 lbs. per square foot. The floor of bridge must be on level with floor of masonry arch approaches on south end, and the bottom of lower chord must be at least three feet above line of extreme high water. Two piers of masonry have been partly built. It is the intention to finish these, and use steel cylinders sunk to bed rock, and filled with concrete, for the five additional piers. These steel cylinders must accompany the bridge in curved plates, rivet holes punched and fitted, and the whole ready for erection on arrival at bridge site. There should be a machine for excavating inside these cylinders, in form of a clamshell dredge. The material to bed rock from surface is sand and gravel. An engine and boiler large enough to operate this machine should come with plant. The masonry arches were commenced years ago, the intention then being to span the river with stone, but cost and difficulty of erection compelled a change in plans. The site of the bridge being in the center of a large town and the Capitol of the State, an ornamental structure, to a limited extent, but that would be somewhat in harmony with the arches already built, would be considered. It must be designed for safety and economy, and should be ready as soon as possible. Each bid must state time required to fill contract, and cost of the whole delivered C. I. F., Port of Altata, Mexico.

### Grading—Brick Paving

#### NOTICE FOR BIDS

Notice is hereby given that bids will be opened by the Common Council of the City of Connersville, Ind., at 7:30 o'clock p. m., on Thursday, the fourth day of October, 1906, when the same will be opened at the Council Chamber of said city and considered by said Council for the improvement of so much of Western Avenue, in said city, as extends from Sixth Street north to Eleventh Street, by grading and paving with brick, laid on a fourteen-inch base of sand and gravel, according to the plans and specifications now on file in the City Engineer's office. All bids must be filed with the City Clerk by 7 o'clock p. m. of said day. All bidders must file with such clerk a bond in the penal sum of \$5,000 with surety to be approved by him, conditioned that he will enter into a contract for said improvement according to said plans and specifications and will furnish a bond with security therefor, to be approved by said Council, if the contract be awarded him. The bidders must enclose with their respective bids a certified check on some acceptable bank for an amount not less than two per cent. of their bid, to insure the execution of their contract if their bids should be accepted, which will be returned to all unsuccessful bidders. The right is reserved to reject any and all bids. The person awarded the contract for said improvement must enter into a written contract therefor and give a bond with surety to be approved by the City Council in a penal sum double the amount of the contract price conditioned for the faithful performance of the same. Said work to be completed by June 1, 1907.

JACOB S. CLONDS,  
Clerk of the City of Connersville.

### Railway Tunnel

#### Royal Arms.

New Zealand Midland Railway. Fresh alternative tenders will be received at the office of the High Commissioner for New Zealand, Westminster Chambers, 13 Victoria Street, London, S. W., for the construction of a tunnel about 5 miles 25 chains in length, at Arthur's Pass, through the dividing range between Canterbury and Westland, on the route of the New Zealand Midland Railway. They are to be addressed to the High Commissioner for New Zealand, and marked on the outside "Tender for Arthur's Pass Tunnel." Tenders will be received up till noon of Monday, 18th March 1907.

Plans, specifications and conditions may be seen and tender forms and other information obtained from Mr. Virgil G. Bogue, Consulting Engineer, 15 William Street, New York. The lowest or any tender will not necessarily be accepted.

P. S. HAY,  
Engineer-in-Chief.

Public Works Office, Wellington, N. Z.

### Water Supply System

#### NOTICE TO CONTRACTORS

Sealed proposals for the construction of a water supply system for the City of Lockport, Niagara County, State of New York, will be received by the Common Council, at the office of the City Clerk in the City of Lockport, until eight (8) o'clock P. M., Eastern standard time, on Monday, October eighth (8th) nineteen hundred and six (1906).

The proposals must be addressed to the Common Council of the City of Lockport, and endorsed.

#### PROPOSAL FOR WATER SUPPLY SYSTEM

The amount of work to be done is shown upon maps and plans, and the character of the work is stated in the specifications accompanying the same; on file in the office of City Clerk in the City Building at Lockport, N. Y., and also on file in the office of Charles A. Hague, Consulting Engineer, 52 Broadway, New York City.

The Divisions of the work are as follows:

An inlet crib in the Niagara River.

An inlet pipe from the crib to the shore.

A pump well connected to the inlet pipe at the shore end.

Pumping station buildings including machinery foundations. Steam pumping machinery and boilers in place ready for service. Electric Pumping machinery, complete ready for service.

A force main from Niagara River to the City of Lockport.

A steel stand pipe in the City of Lockport.

Proposals will also be received at the same time and place for a distributing main from the stand pipe to Main and Buffalo streets.

Any and all persons intending to bid upon this work are required to examine the several locations before submitting proposals.

Proposals may be made on all or any portion of the work.

Each proposal must be accompanied by a certified check upon a bank in the City of Lockport, for an amount equal to at least five per cent. of the amount of the bid, made payable to the City of Lockport, as a guarantee that the party proposing, if the contract be let to him or them upon his or their proposition, will, within five days after being notified of such award, enter into contract for the performance of such work.

The city reserves the right and privilege of rejecting any and all bids in the interest of the City of Lockport.

By order of the Common Council of the City of Lockport, County of Niagara, State of New York.

HOWARD M. WITBECK.  
Mayor.

E. S. BENNETT,  
City Clerk.

### Pumping Engine

Sealed bids will be received by the Trustees for the Water Works and Improvement Bonds of the City of Jacksonville, Florida, until 3 P. M., October 4, 1906, for furnishing and erecting complete on foundation provided, one horizontal compound or triple expansion condensing engine, together with all appurtenances of eight million capacity in twenty-four hours against a total dynamic head of 170 feet when pumping into mains for domestic use, and able to pump the same amount against a dynamic head of 270 feet for fire service steam pressure at the throttle 145 pounds.

For specifications and other information apply to R. N. Ellis, C. E., Superintendent, Jacksonville, Florida. Bids must be enclosed in a sealed envelope plainly marked "Bids for Pumping Engine," and addressed to the Chairman of the Board. The Board reserves the right to reject any or all bids.

B. F. DILLON, Chairman.

### Pipe Sewers

#### Narberth, Montgomery Co., Pa.

Bids for constructing a sewer system for the Borough will be received until 8 p. m., October 1st, 1906. All bids must be sealed and addressed to the Clerk of Council.

The work will consist of laying approximately six miles of terra-cotta pipe sewers (8-in., 10-in. and 12-in.), with necessary manholes, flush tanks, etc.

No bid will be considered unless accompanied by a certified check for \$1,000.

Council reserves the right to reject any and all bids, and to award the contract as it deems for the best interests of the Borough.

E. C. HAWLEY.  
Clerk of Council.

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